Lesson plan-1

Class: B. Ed 1st Semester

Paper: C2, Contemporary India & Education

Unit: 4

Learning Objectives:

The student-teachers will be able to:

- 1. Know the contemporary issues related to education in India.
- 2. Gain a deeper understanding of ideas about RTE Act-2009.
- 3. Get a grasp of the recommendations & implications of Radhakrishnan Commission, Mudailiar Commission and Kothari Commission.

Course Content/Syllabus for presentation

	Sl. No.	Contemporary Issues, Policies & Commission	Time	Reading Material	Assessment	Submission date
	1	Contemporary Issues i. Unemployment ii. Poverty iii. Population explosions iv. Student unrest	3 hours	Contemporary India & Education. i. Aahehli Publication ii.Rita Publication.	Poster (mark-1)	2 nd class
	2	Discussion on RTE Act-2009, SSA, RMSA, thrust towards enrolling & retaining marginalized children	5hours	"	Group discussion (mark-2)	3 rd Class
	3	Role of teacher in the context of universal & inclusive Education	1½ hours	Foundation & Development of Education (Rita, Neelkamal Publication)		
	1.	Radhakrishnan Commission, Mudailiar Commission: i. Recommendations ii. Implications	3 hours	"	Group Presentation (mark-3)	5 th class
5		Kothari Commission: i. Recommendations	21/2	? ?	99	

ii. Implications	•	
n. Implications	hours	

Evaluation:

- 1. Discuss various contemporary issues related to education in India.
- 2. Discuss the main features of (Right to Education) RTE-2009 and its implication.
- 3. What is inclusive education? Discuss the role of a teacher to promote universal and inclusive education.
- 4. Discuss about Radhakrishnan, Mudailiar and Kothari commission with their recommendation and implication.

Mode of Transaction: 1. Lectures, 2. Discussion, 3. Assignments, 4. Film related to topic(if needed)

Reference:

- Ghanta, P., & Das, B. N. (2006). Foundations of Education. New Delhi, Hyderabad: Neelkamal.
- Mandal, D. K., Nag, D., & Sinha Dasgupta, P. (2012). Foundations and Development of Education. Kolkata: Rita Publication.
- Nag, S., & Nag, D. (2016). Contemporary India and Education. Kolkata: Rita publication.
- Saha, P., Pandit, A., Saha, D., & Sinha, D. P. (2016). Contemporary India and Education. Kolkata: Aaheli Publisher.
- Right to Education MHRD. (2018, may 8). Retrieved from mhrd.gov.in > School Education
- SSA Shagun. (2018, june 13). Retrieved from http://www.ssa.nic.in/

Lesson plan-2

Class: B. Ed 1st Semester

Paper: C2, Contemporary India & Education

Unit: 5

Learning Objectives:

The student-teachers will be able to:

- 1. Understand the different committees worked for setting up the language policies.
- 2. Find the Current research on multi-lingual education.
- 3. Understand about Educational planning and management.

Course Content/Syllabus for presentation

Sl. No.	Language policy & Education	Time	Reading Material	Assessment	Submission date
1	Committees worked for setting language policies in India since independence.	2hours	Rita publication		uate
2	Current research on multi- lingual education; medium of schooling & debates Thereon.	3hours	>>	Group discussion (mark-2)	2 nd class
3	Educational planning and management: i. Educational planning ii. Institutional planning iii. Leadership	5hours	School administration Organization & management- (S.S. Chandra)	Group Presentation (mark-3)	4 th class
4.	Administrative structure of secondary education.	2hours	99	Poster (mark-1)	5 th class
5.	Quality management, Supervision	3hours	99		

Evaluation:

- 1. Discuss the various committees worked for setting up language policies in India since the Independence.
- 2. What is Educational Planning & Management? Discuss its role.
- 3. Discuss principles, types and approaches of educational planning.

Mode of Transaction: 1. Lectures, 2. Discussion, 3. Assignments, 4. Film related to topic.

Reference:

- Aggarwal, J., & Gupta, S. (2013). Secondary Education and Management. Delhi: Shipra Publication.
- Chandra, S., & Chakarrborty, A. (2014). School Administration, Organization & Management. Meerut: R. Lall Book Depot.
- Ghanta, P., & Das, B. N. (2006). Foundations of Education. New Delhi, Hyderabad: Neelkamal.
- Mandal, D. K., Nag, D., & Sinha Dasgupta, P. (2012). Foundations and Development of Education. Kolkata: Rita Publication.
- Nag, S., & Nag, D. (2016). Contemporary India and Education. Kolkata: Rita.
- Tyagi, R. S. (2009). Administration and Management in School Education. Delhi: Shipra Publication.

Sarajit Biswas

Asst. professor, Holy Cross College

Dept. of Teacher Education (Agartala)

Lesson plan-1

Class: B. Ed 1st Semester

Paper: C1, Child and growing up

Paper: C5, Understanding subjects

Course Content/Syllabus for Semester 1

Day	Cl	Date	~~
1	Characteristic of	1	C5
	childhood and	1,	Maths as a subject and
	adolescent period Child	1	discipline, Nature, History
	development skill		
2	Physical development	2	Mother Land
	in school age children,	~	Methods of teaching
	Social Development		
3	Marginalization,	3	Understanding
	Marginalized groups,		Understanding and place in curriculum of maths
	Actions of		curriculum of maths
	marginalization, Impact		
	of marginalization		
4	Marginalization	4	Revision
	children, Slum and		-30,131011
	impact, Slum child and		
	experience, Girl child		
	of urban slum area,		
	Education & Slum		
-	Child		
5 6	Dalit and discrimination	5	Remedial Classes
U	Exceptional children,	6	Solving question papers
7	Disabled children		
	Agents of Socialization,		
	Socio Culture influence		
	on Development, Problems of		
	development in Tripura		
	Understanding		
	childhood &		
	adolescence,		
	Characteristics		
	Significance of gender,		
	caste, Role of parents,		
	Role of teachers		
)	Individual differences		
	Nature, causes,		

Lesson plan Class: B. Ed 1st Semester

Paper: C5 Understanding Discipline & Subject Unit: 2

Dr.Tomina NS

Content	Activity
Language as a subject & discipline	
Language as a subject & discipline	Assignment
Language as a subject & discipline	
Evolution of Language	
Evolution of Language	
Evolution of Language	Group Work
History of Language	
History of Language	9
History of Language	Assignment
What is language	
What is language	
Nature of language	
Nature of language	Test
Understanding of language in relationship to other discipline	
Understanding of language in relationship to other discipline	Assignment
Understanding of language in relationship to other discipline	
Linguistics and other disciplines in language	
Linguistics and other disciplines in language	Subject Board Work

Lesson Plan (Academic Session 2021-22, Even Semester)				
Name of the Faculty	Mr. Achintya Bhattacharjee			
Department	Business Ad	ministration		
Paper	Quantitative	Techniques for Management		
Paper Code	BMGT 202C	,		
Semester	2 nd			
Unit 1:	Sub Topic	Learning objectives		
Probability Distribution	Normal Distribution Binomial Distribution	Students will be able to: (1) Calculate values of random variables using the normal distribution, given probabilities and parameters of a data set. (2) Calculate the unknown mean and/or standard deviation of a data set given probabilities of random variables that are normally distributed. Students will be able to: (1) Calculate probabilities using the cumulative distribution of a binomial random variable by using either a binomial distribution table. (2) calculate probabilities using the cumulative distribution of a binomial random variable involving the complement rule and/or the difference rule,		
Distribution	Poisson's Distribution	Students will be able to calculate: (1) the probability of an event occurring over a certain interval. The interval can be one of time, area, volume or distance. (2) You can find the probability of an event occurring is found using the formula in the Poisson distribution formula image.		

Unit 2:	Sub Topic	Learning objectives	
	Karl Pearson Correlation Coefficient	Students will be able to (1) calculate Pearson's correlation coefficient for bivariate data by hand and using a graphic display calculator, (2) use the correlation coefficient to describe how two variables correlate with one another, (3) estimate the correlation coefficient from the scatter diagram of bivariate data.	
Correlation Analysis	Spearman's Rank Correlation	 Identify the direction and strength of a correlation between two factors. Compute and interpret the Pearson correlation coefficient and test for significance. Compute and interpret the coefficient of determination. Compute and interpret the Spearman correlation coefficient and test for significance. 	
Resources/ Materials Uesd	Materials		
1 -		ussion, Numerical Solved, putting examples of current scenarios s associated with that related to the topic.	
Assessment	Class Test/As	ssignment	
Feedback to students		Performance based discussion/ necessary steps taken/ reviewing weak points & nurturing their concept.	
Revision / Revision is g Remedial Classes		oing on.	

	Lesson Plan (Academic Session 2021-22, Even Semester)				
Name of the Faculty	Mr. Achintya B	Shattacharjee			
Department	Business Admir	nistration			
Paper	Cost Accountin	g			
Paper Code	BMGT 201C				
Semester	2 nd				
Unit 4:	Sub Topic	Learning objectives			
	Introduction to Material cost, Importance of Inventory Control, ABC Analysis	Students will be able to understand: (1) Ascertainment of cost, Determination of selling price, Ascertainment of profit on each activity, Cost control, Cost reduction, Decision making. (2) Maintaining an optimum level of inventories, helps in laying the procurement process considering the wait-time, lead-time etc, record of movement of materials. Students will be able to understand:			
Accounting for Materials & Labour Cost:	Determination of EOQ with Numerical	 To minimize order costs or carrying costs, whichever are higher. To minimize order costs or carrying costs and maximize the rate of inventory turnover. To minimize the total cost, order costs, and carrying costs over a period of time. To order sufficient quantity to economically meet the next period's demand 			
	Labour Turnover, causes of labour turnover & costing of it.	After studying this lesson, the student is able to: (1) understand the meaning of Labour turnover (2) how to measure the Labour turnover (3) understand the causes for Labour turnover (4) what are the evil effects of Labour turnover? (5) how to reduce the Labour turnover			

Unit:5				
Contract Costing	Accounting for contract profit or loss of incomplete & Complete contracts with numerical Students will be able to understand: (1) To ascertain the cost of each contract separately. (2) To ascertain the profit or loss on each contract separately.			
Resources / Materials Used	Whiteboard, Marker, Reference books & problems given in that			
Basis of Class taken	Concept discussion, Numerical Solved, putting examples of current scenarios with problems associated with that related to the topic.			
Assessment	Class Test & Assignment			
Feedback to students	Performance based discussion/ necessary steps taken/ reviewing weak points & nurturing their concept.			
Revision / Remedial Classes	Revision is going on.			

	Lesson Plan (Academic Session 2021-22, Even Semester)				
Name of the Faculty Mr. Achintya		Bhattacharjee			
Department	Business Adm	inistration			
Paper	Research Met	hodology			
Paper Code	BMGT 401C				
Semester	2 nd				
Unit 5:	Sub Topic	Learning objectives			
	Concept of hypothesis, types of hypotheses,	 (1) how to develop Null and Alternative Hypotheses. (2) Understand Type I and Type II Errors (3) Able to do hypothesis test about population mean when σ is known (4) Able to do hypothesis test about population mean when σ is unknown. 			
Testing of Hypothesis & Report Writing	Various Test for Hypothesis: Z test, T test, Chi-Square Test, ANOVA	 (1) To determine whether two population means are different when the variances are known and the sample size is large. (2) To determine a probability that two populations are the same with respect to the variable tested. (3) To analyze the variance when you are testing a hypothesis to understand how different groups respond to each other by making connections between independent and dependent variables. (4) Understand the purpose of conducting analytical comparisons. Define and describe two types of analytical comparisons, and in what research situations you would use one versus the other. (5) Calculate and interpret the degrees of freedom (df), between-group variance (MSBG), within-group variance (MSWG), and the F-ratio (F) for the one-way ANOVA. 			

		Students will be able to understand:	
	Interpretation Techniques	 How to do the interpretation of data which will help them as a researcher to categorize, manipulate, and summarize the information in order to answer critical questions. Various methods of research as observations, Focus groups, Secondary Research, Standard deviation: Frequency distribution. 	
	Report Writing concept and its significance Different steps of Report Writing	Students will be able to know: • how to write reports on the findings of a research project or alternatively scientific observations on or about a subject. Normally the research assignments like projects, investigations, explorations, theses, dissertations fall in this category	
Resources / Materials Used	Whiteboard, Marker, Reference books &problems given in that		
Basis of Class taken	Concept discussion, Numerical Solved, putting examples of current scenarios with problems associated with that related to the topic.		
Assessment	Class Test & Assignment		
Feedback to students	Performance based discussion/ necessary steps taken/ reviewing weak points & nurturing their concept.		
Revision / Remedial Classes	Revision is going on.		

Lesson Plan (Academic Session 2021-22, Even Semester)				
Name of the Faculty	Mr. Achintya Bhattacharjee			
Department	Business Admir	nistration		
Paper	Entrepreneursh	nip Development & Small Business Fundamentals		
Paper Code	BMGT 405C			
Semester	2 nd			
Unit 1:	Sub Topic	Learning objectives		
Entrepreneurship	Concept, Qualities of an effective entrepreneur & types Significance of an Entrepreneur	 (1) To develop and strengthen the entrepreneurial quality among students, to motivate them for achievement and to enable participants to be independent, capable, promising businessmen. (2) To make them Creative, Professional toward business, to enable their Risk-taking ability, & to Open their mind towards learning of entrepreneurship. To make students understand the importance of entrepreneurial study in the growth of the economy not only for himself but also for many others as well.		
	in Economic Growth	not only for himself but also for many others as well as society and country by (1) Capital Formation (2) Improvement in Per Capita Income (3) Generation of Employment (4) Economic Independence		
Unit:2				
Entrepreneurial System	How to search or get a business idea & Idea processing factors or techniques	It enables the student to expand their range of ideas beyond their current range of thinking. It will help them to Stay relevant & to Make positive change in their organization by Creative thinking which inspires ideas. Ideas inspire change.		

Factors determining Entrepreneuria 1 Growth	Students will be able to know what are the ease and barriers which will affect their business growth such as: Economic Factors: Economic Conditions Economic Policies Labour Policies Trade Policies Trade Policies Incentives and Subsidies Non-Economic Factors: Social Factors Cultural Factors Technological
	Educational Factors
Whiteboard, Marker, Reference books &problems given in that	
Concept discussion, Numerical Solved, putting examples of current scenarios with problems associated with that related to the topic.	
Class Test & Assignment	
Performance based discussion/ necessary steps taken/ reviewing weak points & nurturing their concept.	
Revision is going on.	
	determining Entrepreneuria 1 Growth Whiteboard, Ma Concept discussi scenarios with process Class Test & Ass Performance bas points & nurturing

Lesson Plan (Academic Session 2021-22, Even Semester)				
Name of the Faculty	Mr. Achintya Bhattacharjee			
Department	Business Administration			
Paper	Management Accounting			
Paper Code	BMGT 605C			
Semester	6 th			
Unit 4:	Sub Topic	Learning objectives		
Accounting For Overheads	Meaning & Importance Methods of Overhead costing: Primary Distribution & Secondary Distribution with problems	Students will be able to (1) differentiate between direct cost and indirect costs. (2) Identify various kinds of overheads (3) Allocate and apportion of overheads into various cost center. To make students understand how to allocate the costs to different departments in case of multi-product environment, there are common service cost centers which are providing services to the various production cost centers and other service cost centers. (1) To be followed is to apportion the overheads to different cost centers (2) To apportion the costs of service cost centers to production cost centers on an equitable basis.		
Unit:5				
Activity based Costing:	Meaning & Importance Difference between traditional costing system with ABC system with problems.	To make students aware of both the costing methods mainly to the activity-based costing which provides a more accurate pricing decisions with understanding of overheads and cost drivers.		

Resources/M aterials Uesd	Whiteboard, Marker, spreadsheet, Reference books & problems given in that
Basis of Class taken	Concept discussion, Numerical Solved, putting examples of current scenarios with problems associated with that related to the topic.
Assessment	Class Test/Assignment
Feedback to students	Performance based discussion/ necessary steps taken/ reviewing weak points & nurturing their concept.
Revision / Remedial Classes	Revision is going on.

Lesson Plan (Academic Session 2021-22, Even Semester)			
Name of the Faculty	Mr. Achintya Bhattacharjee		
Department	Business Administration		
Paper	International Bu	siness Finance	
Paper Code	BMGT 607C		
Semester	6 th		
Unit 1:	Sub Topic	Learning objectives	
International Financial Environment	Concept of International business, Evolution of International Financial system Function of IMF, World Bank & WTO with concept of their members.	 (1) the international environments in which businesses operate (2) To be able to model the data from the international environments to support decision making. (3) To be able to know how the international trade market has evolved Understand the nature of international organizations such as the United Nations, the International Bank for Reconstruction and Development (World Bank), International Monetary Fund, World Trade Organization, Organization for Economic Cooperation and Development and their effects on business. Understand the major financial, economic/socioeconomic, political, labor, competitive and distributive forces affecting international business. Understand the functional areas of business economics, marketing, human resources, finance, operations, and control of international business. 	
UN11:2:			
	1		

Foreign Exchange Risk Management	Exchange Rate & Interest Rate with its nature and importance Exchange Rate & Interest Rate volatility with Problems	 Understand the major trends in the international trade and investment patterns between and among the major groups of nations and the theories purporting to explain these patterns. Understand the export and import practices, terminology, and documentation. Students will be able to understand (1) How to describe the balance of payment accounts. (2) Explain how the exchange rate is determined. (3) Explain what factors can cause a change in a currency's exchange rate. (4) Explain the difference between flexible exchange rates and fixed exchange rates. 	
Resources / Materials Used	Whiteboard, Marker, spreadsheet, Reference books & problems given in that		
Basis of Class taken	Concept discussion, Numerical Solved, putting examples of current scenarios with problems associated with that related to the topic.		
Assessment	Class Test/Assignment		
Feedback to students	Performance based discussion/ necessary steps taken/ reviewing weak points & nurturing their concept.		
Revision / Remedial Classes	Revision is going on.		

Class Plan for the Academic Year 2021-2022

Name of Teacher:

Course Title:

Subject Code:

Semester:

Mandrita Saha

Computer Skills I

BMGT 205C

2nd

Lesson Title:

History of Computers, Evolution of Computers, Generations of Computers

Structure of Computers (Hardware)

Structure of Computers (Software) Types of Computers, Applications of Computers

Idea of Algorithm

Basics of programming Language

Internet

MS Word(Feautures, Word Menu, Table, Page Setup, Background)

MS Word(Font, Paragraph, Formatting, Symbols, equation, formatting of numbers)

MS Word(Mail-merge, Protected Document)

MS Excel(Feautures, Cell, worksheet, excel menu)

MS Excel(Simple formulas with basic functions, sorting, Charts)

Objectives:

- To have the knowledge of history of computer
- To have the idea of evolution of computers
- To give the idea of various generations of computers.
- To introduce the various hardware components of computer
- To have the idea of input devices, output devices, memory units etc. and their working principles.
- To have the ideas about the various types of software and their applications
- To introduce the various types of computers and their areas of applications
- To introduce the areas where computers are being used
- To introduce the idea of algorithm, its representation, flowchart, its symbols, advantages & disadvantages
- To introduce the various types of programming languages, its merits and demerits.
- To have the knowledge of various types of translator programs
- 1. To introduce about Internet, its uses, various connecting devices
- 2. To have the knowledge of browser, search engine and various terminologies related to Internet
- To introduce MS WORD, its uses, features
- To have the idea of various menus in MS WORD
- To insert and create tables, change the page setup, change the background and add new one.
- To know how to do formatting of documents using Font f
- To introduce the mail-merge, its techniques, its importance
- To have the idea the way to protect the documents.
- To introduce the Spreadsheets, its features, Menus
- To introduce the various formulas with basic functions
- To know the technique of Sorting
- To have the knowledge of inserting and creating charts

Feautures, ppt Menu, creation of slides, animation
MS PowerPoint
(Slide Transition, auto presentation, mouse click presentation)
Introduction to open Source Software

Resources:

MS PowerPoint

Teaching Strategies:

Assessment:

Revision/Remedial Classes:

- To introduce MS PowerPoint, its features, Menus
- To have the knowledge of creating new slides
- To know the technique of doing animation
- To have the knowledge to do slide transition automatically and by mouse click etc.
- To introduce about Open Source Software, its advantages, disadvantages etc.

Whiteboard, Marker, Projector

PowerPoint Presentation, Pdf Notes, Text Books, Online study materials etc.

Class Test, Assignment, Presentation Revision will be done after completion of Syllabus and Remedial Class will be done if required

Lesson Plan: Introduction to Consumer Behaviour (Unit 1)

Name of Teacher: Mrs. Sharmili Chakraborty

Course Title: Consumer Behaviour

Lesson Title: Introduction to Consumer Behaviour (Unit 1)

Specific Objective:

➤ Gaining in-depth knowledge of the topics covered in this unit w.r.to managerial prospects and practical implementation through various examples and case analysis.

Performance Objectives:

- ➤ Gaining knowledge about Introduction & Evolution of Consumer Behaviour
- ➤ Understanding the Factors affecting Consumer Behaviour
- ➤ Gaining in-depth knowledge about Scope & Application
- ➤ Gaining in-depth knowledge about Models of Consumer Behaviour (Nicosia, Howard-Sheth Model)
- ➤ Gaining knowledge about the Communication & Consumer Behaviour
- Learning how to implement the topics learnt through Case analysis

Materials Needed:

- Projector and proper projection system
- ➤ Board for highlighting points of references

Teaching Strategies:

- ➤ Introduction & Evolution of Consumer Behaviour
- ➤ Factors affecting Consumer Behaviour
- ➤ Scope & Application
- Models of Consumer Behaviour (Nicosia, Howard-Sheth Model)
- ➤ Communication & Consumer Behaviour
- > Case analysis and discussion

Assessment:

- > Assignment
- Class test
- Presentation
- ➤ Group Discussion

Lesson Plan: The Influencing Factors on Consumer (Unit 2)

Name of Teacher: Mrs. Sharmili Chakraborty

Course Title: Consumer Behaviour

Lesson Title: The Influencing Factors on Consumer (Unit 2)

Specific Objective:

➤ Gaining in-depth knowledge of the topics covered in this unit w.r.to managerial prospects and practical implementation through various examples and case analysis.

Performance Objectives:

- ➤ Gaining knowledge about personality: Nature, Theories (Freudian, Neo- Freudian, Trait), Brand Personality.
- ➤ Understanding Motivation: Introduction, Dynamics of Motivation, Hierarchy of Need Theory, Motivational Research.
- ➤ Gaining in-depth knowledge about Learning: Elements, Theories (Classical Conditioning, Operant Conditioning, Observational Learning), Measurement of Consumer Learning.
- ➤ Gaining in-depth knowledge about Perception: Elements, Dynamics, Product Positioning, Perceived Price Quality Relationship, Perceived Risk.
- ➤ Gaining knowledge about Attitude: Introduction, Models (Tri-component Attitude Model, Attitude Towards The Ad Model), Attitude Formation
- ➤ Learning how to implement the topics learnt through Case analysis

Materials Needed:

- Projector and proper projection system
- ➤ Board for highlighting points of references

Teaching Strategies:

- Personality: Nature, Theories (Freudian, Neo-Freudian, Trait), Brand Personality.
- ➤ Motivation: Introduction, Dynamics of Motivation, Hierarchy of Need Theory, Motivational Research.
- Learning: Elements, Theories (Classical Conditioning, Operant Conditioning, Observational Learning), Measurement of Consumer Learning.
- Perception: Elements, Dynamics, Product Positioning, Perceived Price Quality Relationship, Perceived Risk.
- ➤ Attitude: Introduction, Models (Tri-component Attitude Model, Attitude Towards The Ad Model), Attitude Formation.
- Case analysis and discussion

Assessment:

- > Assignment
- Class test
- > Presentation
- Group Discussion

Lesson Plan: Consumer in Their Social & Cultural Setting (Unit 3)

Name of Teacher: Mrs. Sharmili Chakraborty

Course Title: Consumer Behaviour

Lesson Title: Consumer in Their Social & Cultural Setting (Unit 3)

Specific Objective:

➤ Gaining in-depth knowledge of the topics covered in this unit w.r.to managerial prospects and practical implementation through various examples and case analysis.

Performance Objectives:

- ➤ Gaining knowledge about Culture: Introduction, How Cultures are learned, Measurement of Culture.
- ➤ Understanding Social: Introduction, Different Social classes in India, Measurement of Culture.
- ➤ Gaining in-depth knowledge about Situational: Introduction, Types of Situation (Purchase, Consumption, Communication), Situational influences on Consumer Behaviour.
- Learning how to implement the topics learnt through Case analysis

Materials Needed:

- Projector and proper projection system
- ➤ Board for highlighting points of references

Teaching Strategies:

- Culture: Introduction, How Cultures are learned, Measurement of Culture.
- > Social: Introduction, Different Social classes in India, Measurement of Culture.
- ➤ Situational: Introduction, Types of Situation (Purchase, Consumption, Communication), Situational influences on Consumer Behaviour.
- > Case analysis and discussion

Assessment:

- > Assignment
- Class test
- > Presentation
- ➤ Group Discussion

Lesson Plan: Consumer Decision Making Process (Unit 4)

Name of Teacher: Mrs. Sharmili Chakraborty

Course Title: Consumer Behaviour

Lesson Title: Consumer Decision Making Process (Unit 4)

Specific Objective:

➤ Gaining in-depth knowledge of the topics covered in this unit w.r.to managerial prospects and practical implementation through various examples and case analysis.

Performance Objectives:

- ➤ Understanding basics, levels, & model of Consumer Decision Making
- > Gaining knowledge about Gifting Behaviour,
- ➤ Gaining knowledge about Post Purchase Behaviour
- ➤ Learning how to implement the topics learnt through Case analysis

Materials Needed:

- Projector and proper projection system
- ➤ Board for highlighting points of references

Teaching Strategies:

- ➤ Introduction, Levels, & Model of Consumer Decision Making,
- ➤ Gifting Behaviour,
- > Post Purchase Behaviour.
- > Case analysis and discussion

Assessment:

- > Assignment
- Class test
- Presentation
- Group Discussion

Lesson Plan: Current & Related Issues (Unit 5)

Name of Teacher: Mrs. Sharmili Chakraborty

Course Title: Consumer Behaviour

Lesson Title: Current & Related Issues (Unit 5)

Specific Objective:

➤ Gaining in-depth knowledge of the topics covered in this unit w.r.to managerial prospects and practical implementation through various examples and case analysis.

Performance Objectives:

- ➤ Understanding basics of Organisational Buying Behaviour
- ➤ Gaining knowledge about Organisational Buyer Characteristics & Process
- ➤ Gaining knowledge about Consumerism
- ➤ Understanding in details about e-Commerce & Consumer Behaviour
- ➤ Learning how to implement the topics learnt through Case analysis

Materials Needed:

- Projector and proper projection system
- ➤ Board for highlighting points of references

Teaching Strategies:

- ➤ Introduction to Organisational Buying Behaviour
- Organisational Buyer Characteristics & Process
- > Consumerism,
- > e-Commerce & Consumer Behaviour.
- > Case analysis and discussion

Assessment:

- > Assignment
- Class test
- > Presentation
- > Group Discussion

Lesson Plan: Marketing Research Fundamentals (Unit 1)

Name of Teacher: Mrs. Sharmili Chakraborty

Course Title: Marketing Research

Lesson Title: Marketing Research Fundamentals (Unit 1)

Specific Objective:

> Gaining in-depth knowledge of the topics covered in this unit w.r.to managerial prospects and practical implementation in research through various examples and case analysis.

Performance Objectives:

- ➤ Knowing the basics and Introduction to Marketing Research, Overview of Research
- ➤ In-depth knowledge about Application Limitations and Threats of Marketing Research
- Gaining in-depth knowledge related Marketing Information System & Marketing Decision Support System
- ► Learning how to implement the topics learnt through Case analysis

Materials Needed:

- Projector and proper projection system
- ➤ Board for highlighting points of references

Teaching Strategies:

- Introduction to Marketing Research, Overview of Research,
- ➤ Application and Limitations of Marketing Research,
- > Threats of Marketing Research,
- Marketing Information System,
- ➤ Marketing Decision Support System
- Case analysis and discussion

Assessment:

- > Assignment
- Class test
- > Presentation
- ➤ Group Discussion

Lesson Plan: Marketing Research Management (Unit 2)

Name of Teacher: Mrs. Sharmili Chakraborty

Course Title: Marketing Research

Lesson Title: Marketing Research Management (Unit 2)

Specific Objective:

> Gaining in-depth knowledge of the topics covered in this unit w.r.to managerial prospects and practical implementation in research through various examples and case analysis.

Performance Objectives:

- ➤ Knowing the basics importance of research management and qualities of a marketing research manager
- ➤ In-depth knowledge about organising marketing research function, evaluation and control of marketing research
- ➤ Knowing the difference between Market Research versus Marketing Research
- > Gaining in-depth knowledge related to marketing research and marketing management
- Learning how to implement the topics learnt through Case analysis

Materials Needed:

- Projector and proper projection system
- ➤ Board for highlighting points of references

Teaching Strategies:

- ➤ Introduction to Importance of Research Management and Qualities of a Marketing Research Manager.
- > Organising Marketing Research Function, Evaluation and Control of Marketing Research
- ➤ Market Research versus Marketing Research
- Marketing Research and Marketing Management
- Case analysis and discussion

Assessment:

- > Assignment
- Class test
- Presentation
- ➤ Group Discussion

Lesson Plan: Marketing Principles and Society (Unit 1)

Name of Teacher: Mrs. Sharmili Chakraborty

Course Title: Marketing Management 1

Lesson Title: Marketing Principles and Society (Unit 1)

Specific Objective:

➤ Gaining in-depth knowledge of the topics covered in this unit w.r.to managerial prospects and practical implementation through various examples and case analysis.

Performance Objectives:

- ➤ Knowing the concept of Marketing, Importance, Scope
- ➤ In-depth knowledge about Core Marketing Concepts Needs, Wants and Demands
- ➤ Gaining information about various concepts of Marketing, Integrated Marketing, Analyzing Macro Marketing Environment
- ➤ In-depth knowledge about Environmental Scanning
- Learning how to implement the topics learnt through Case analysis

Materials Needed:

- Projector and proper projection system
- ➤ Board for highlighting points of references

Teaching Strategies:

- ➤ Definition of Marketing, Importance, Scope,
- ➤ Core Marketing Concepts Needs, Wants and Demands,
- ➤ Various concepts of Marketing, Integrated Marketing, Analyzing Macro Marketing Environment,
- > Environmental Scanning.
- ➤ Case analysis and discussion

Assessment:

- > Assignment
- Class test
- > Presentation
- Group Discussion

Lesson Plan: Marketing Research and Marketing Information Systems (Unit 2)

Name of Teacher: Mrs. Sharmili Chakraborty

Course Title: Marketing Management 1

Lesson Title: Marketing Research and Marketing Information Systems (Unit 2)

Specific Objective:

> Gaining in-depth knowledge of the topics covered in this unit w.r.to managerial prospects and practical implementation through various examples and case analysis.

Performance Objectives:

- ➤ Knowing the concept of Marketing Research & Process
- ➤ Knowledge about Barrier in Marketing Research
- ➤ In-depth knowledge about Marketing Information System
- ➤ Learning how to implement the topics learnt through Case analysis

Materials Needed:

- Projector and proper projection system
- ➤ Board for highlighting points of references

Teaching Strategies:

- ➤ Meaning of Marketing Research, Process,
- ➤ Barrier in Marketing Research,
- ➤ Marketing Information System
- > Case analysis and discussion

Assessment:

- > Assignment
- Class test
- > Presentation
- Group Discussion

Lesson Plan: Study of Group Behaviour (Unit 1)

Name of Teacher: Mrs. Sharmili Chakraborty

Course Title: Organizational Behavior 2

Lesson Title: Study of Group Behaviour (Unit 1)

Specific Objective:

➤ Gaining in-depth knowledge of the topics covered in this unit w.r.to managerial prospects and practical implementation through various examples and case analysis.

Performance Objectives:

- ➤ Knowing the concept & definition of Group, its Classification & importance
- ➤ In-depth knowledge about Stages of Group Development
- ➤ In-depth knowledge about Group Properties, Group Decision Making
- Learning how to implement the topics learnt through Case analysis

Materials Needed:

- Projector and proper projection system
- ➤ Board for highlighting points of references

Teaching Strategies:

- ➤ Definition of Group, Classification, Importance,
- > Stages of Group Development,
- > Group Properties, Group Decision Making.
- > Case analysis and discussion

Assessment:

- > Assignment
- Class test
- > Presentation
- > Group Discussion

Lesson Plan: Communication & Leadership (Unit 2)

Name of Teacher: Mrs. Sharmili Chakraborty

Course Title: Organizational Behavior 2

Lesson Title: Communication & Leadership (Unit 2)

Specific Objective:

> Gaining in-depth knowledge of the topics covered in this unit w.r.to managerial prospects and practical implementation through various examples and case analysis.

Performance Objectives:

- ➤ Knowing the concept of Communication: Concept, Functions, Process, Direction of Communication, Interpersonal and Organisational Communication
- ➤ In-depth knowledge about Leadership: Concept, Styles, Theories (Trait and Behavioral Ohio State Studies, Michigan Studies),
- ➤ In-depth knowledge and concept of Managerial Grid
- ➤ Learning how to implement the topics learnt through Case analysis

Materials Needed:

- Projector and proper projection system
- ➤ Board for highlighting points of references

Teaching Strategies:

- ➤ a. Communication: Concept, Functions, Process, Direction of Communication, Interpersonal and Organisational Communication.
- ▶ b. Leadership: Concept, Styles, Theories (Trait and Behavioral Ohio State Studies, Michigan Studies), Concept of Managerial Grid.
- > Case analysis and discussion

Assessment:

- > Assignment
- Class test
- > Presentation
- ➤ Group Discussion

Lesson Plan: Unit 1

Name of Teacher: Mrs. Sharmili Chakraborty

Course Title: Principles of Management

Lesson Title: Unit 1
Specific Objective:

> Gaining in-depth knowledge of the topics covered in this unit w.r.to managerial prospects and practical implementation through various examples and case analysis.

Performance Objectives:

- ➤ Knowing the concept, nature and significance of Management,
- ➤ In-depth knowledge about Approaches of management, Contributions of Taylor, Fayol and Barnard,
- ➤ In-depth knowledge about Functions of a Manager, Social responsibility of Managers
- ➤ Knowledge of Values in management
- ➤ Learning how to implement the topics learnt through Case analysis

Materials Needed:

- Projector and proper projection system
- ➤ Board for highlighting points of references

Teaching Strategies:

- > Nature and significance of Management,
- > Approaches of management, Contributions of Taylor, Fayol and Barnard,
- > Functions of a Manager, Social responsibility of Managers,
- ➤ Values in management.
- > Case analysis and discussion

Assessment:

- > Assignment
- Class test
- > Presentation
- ➤ Group Discussion

Lesson Plan: Unit 2

Name of Teacher: Mrs. Sharmili Chakraborty

Course Title: Principles of Management

Lesson Title: Unit 2
Specific Objective:

➤ Gaining in-depth knowledge of the topics covered in this unit w.r.to managerial prospects and practical implementation through various examples and case analysis.

Performance Objectives:

- ➤ Knowing the concept, nature and significance of Planning, Objectives, Steps of Planning,
- > Gaining knowledge about Decision making as key step in planning
- ➤ In-depth knowledge about The Process and Techniques of Decision Making
- ➤ In-depth knowledge about Organisation: Nature and significance, Approaches, Departmentation, Line and staff relationships
- ➤ Knowledge of Delegation and Decentralisation, Committee system, Department of effective organizing
- Learning how to implement the topics learnt through Case analysis

Materials Needed:

- Projector and proper projection system
- ➤ Board for highlighting points of references

Teaching Strategies:

- ➤ The Nature of significance of Planning, Objectives, Steps of Planning,
- > Decision making as key step in planning.
- > The Process and Techniques of Decision Making.
- Organisation: Nature and significance, Approaches, Departmentation, Line and staff relationships,
- > Delegation and Decentralisation, Committee system, Department of effective organizing.
- > Case analysis and discussion

Assessment:

- > Assignment
- Class test
- Presentation
- > Group Discussion

Class/Lesson Plan: Cost-Volume-Profit-Analysis

Name of the Teacher: Dr. Sushobhan Sengupta

Course Title – Management Accounting

Lesson Title - Cost-Volume-Profit-Analysis

Specific Objective— Learn to use these classifications to analyse the relationship among costs, volume, and profit.

Performance Objectives:

- Identify accounting concepts and practices related to preparing accounting information for management decisions;
- Compute the contribution margin;
- Prepare a contribution income statement;
- Calculate the contribution margin ratio;
- Compute the break-even point in units and Sales value;
- Calculate the target profit and margin of safety;
- Define the accounting terms related to the lesson.

Materials Needed:

- Projection system
- Board for Demonstration Problems
- spreadsheet software for calculations in computerised form.

Teaching Strategies:

Practice Work- Identifying CVP Relationships; Preparing a Contribution; Calculating Break-Even Point; Calculating Contribution, Margin Ratio, Break-Even Point, and Target Sales; Analysing Changes in Variable Costs and Sales; Analysing Changes in Fixed Costs, Selling Price, and Sales; Decision Making: Make or Buy; Accept or reject; etc.

Assessment:

- Class test
- Assignment
- Presentation
- Group Discussion

Remedial Classes/ Revision Classes: To be Submitted to Department for approval.

Class/Lesson Plan: Standard Costing

Name of the Teacher: Dr. Sushobhan Sengupta

Course Title – Management Accounting

Lesson Title - Standard Costing

Specific Objective– Learn the Meaning, advantages and disadvantages of standard costing, Techniques of standard costing, Variance analysis and reporting.

Performance Objectives:

- Identify the concept of standard costing.
- To differentiate between Traditional Costing System and Standard Costing
- Advantages and disadvantages of standard Costing
- Different Techniques of Standard Costing;
- Calculation of Variance Analysis and Reporting

Materials Needed:

- Projection system
- Board for Demonstration Problems
- spreadsheet software for calculations in computerised form.

Teaching Strategies:

Basic Theory and Practice Work- Material Variance; Price Variance; labour Cost Variance and Idle Time Variance.

Assessment:

- Class test
- Assignment
- Presentation
- Group Discussion

Remedial Classes/ Revision Classes: To be Submitted to Department for approval.

Class/Lesson Plan: BUDGETARY CONTROL SYSTEM

Name of the Teacher: Dr. Sushobhan Sengupta

Course Title – Management Accounting

Lesson Title - BUDGETARY CONTROL SYSTEM

Specific Objective— Understand the impact of budgeting in achieving organizational goals. Make better business decisions centred on financial planning and analysis. Identify and recognise key performance indicators for effective and focused decision making. As well as to Learn the Meaning advantages and disadvantages of Budgetary control system, the Concept of Budget factor (Key or limiting factor) and the Budget Period, Types of Budgets, functional (or operational) Budgets, Sales, Production, Purchase, Cash Budget, Flexible Budgets, Zero-Based Budgets, Performance Budgets, Master Budget.

Performance Objectives:

- Identify the concepts, meaning, advantages and Disadvantages of Budgetary control system and practices related to preparing Budgets;
- Differentiate between Functional and Operational Budget;
- Preparation of Sales; Production; Material usage Budget
- Preparation of Cash Budget, Flexible Budgets, Zero-Based Budgets, Performance Budgets, Master Budget.

Materials Needed:

- Projection system
- Board for Demonstration Problems
- spreadsheet software for calculations in computerised form.

Teaching Strategies:

Practice Work- Identifying Different types of budgets and its need; Preparing a budget; concept of Limiting factor, Preparation of Functional and operational Budgets and understanding the impact on financial planning and dession.

Assessment:

- Class test
- Assignment
- Presentation
- Group Discussion

Remedial Classes/ Revision Classes: To be Submitted to Department for approval.

Class/Lesson Plan: INTERNATIONAL FINANCIAL ENVIRONMENT

Name of the Teacher: Dr. Sushobhan Sengupta

Course Title – INTERNATIONAL BUSINESS FINANCE

Lesson Title - INTERNATIONAL FINANCIAL ENVIRONMENT

Specific Objective— Understand the Evolution of the International Financial System, The Gold Standard, The Bretton Wood System and the IMF, The World Bank, WTO, Euro Bonds, Recent Pattern of International Banking Activities, Balance of Payment

Performance Objectives:

- Understand the History of International Financial System
- Concept Rise of Gold Standard (Rise and fall);
- Evaluation of IFM and Bretton Woods System
- Role and Functions of World Bank, WTO, Balance of Payment.
- International Banking activities in present days

Materials Needed:

- Projection system
- Board for Demonstration Problems
- spreadsheet software for calculations in computerised form.

Teaching Strategies:

To make students understand the relevance of international finance in present economic scenario. Making student relate to the historical aspects of International Financial System and different series of changes the International Business went by in last 80 years. Importance and functions played by different financial institutions.

Assessment:

- Class test
- Assignment
- Presentation
- Group Discussion

Class/Lesson Plan: THEORIES ON EXCHANGE RATE MOVEMENTS

Name of the Teacher: Dr. Sushobhan Sengupta

Course Title – INTERNATIONAL BUSINESS FINANCE

Lesson Title - THEORIES ON EXCHANGE RATE MOVEMENTS

Specific Objective— Understand the concepts of Purchasing Power Parity, Fischer effect, International Fischer Effect

Performance Objectives:

- Concept of PPP theory using numerical.
- Concept of Fisher effect theory using numerical.
- Concept of International Fisher effect theory using numerical.

Materials Needed:

- Projection system
- Board for Demonstration Problems
- spreadsheet software for calculations in computerised form.

Teaching Strategies:

To make students understand the relevance of Purchasing Power parity, Fischer effect, International Fischer Effect Theory on exchange rate Movement.

Assessment:

- Class test
- Assignment
- Presentation
- Group Discussion

Class/Lesson Plan: GLOBAL FINANCIAL MARKETS AND INTEREST RATES

Name of the Teacher: Dr. Sushobhan Sengupta

Course Title - INTERNATIONAL BUSINESS FINANCE

Lesson Title - GLOBAL FINANCIAL MARKETS AND INTEREST RATES

Specific Objective—Understand the concepts of The Global Financial Markets, Domestic & Offshore Markets, Euro Markets, Interest Rate in the Global Money Markets and an Overview of Money Market Instrument

Performance Objectives:

- Concept of The Global Financial Markets.
- Difference Between Domestic & Offshore Markets.
- Concept of Euro Markets, Interest Rate in the Global Money Markets
- Overview of Money Market Instruments

Materials Needed:

- Projection system
- Board for Demonstration Problems
- spreadsheet software for calculations in computerised form.

Teaching Strategies:

To make students understand the concepts of The Global Financial Markets, Difference Between Domestic & Offshore Markets, Concept of Euro Markets, How Interest Rate in the Global Money Markets affects the economy and an Overview of Money Market Instrument.

Assessment:

- Class test
- Assignment
- Presentation
- Group Discussion

Class/Lesson Plan: FOREIGN EXCHANGE MARKET

Name of the Teacher: Dr. Sushobhan Sengupta

Course Title – INTERNATIONAL BUSINESS FINANCE

Lesson Title - FOREIGN EXCHANGE MARKET

Specific Objective— Structure and Types of Transaction and Settlements Rates, Exchange Rate Quotation, Forward Quotation, Exchange Rate Regimes and Foreign Exchange Market in India.

Performance Objectives:

- Concept of Transaction and Settlements Rates.
- Concept of Exchange Rate Quotation, Forward Quotation, Exchange Rate Regimes and Foreign Exchange Market in India.

Materials Needed:

- Projection system
- Board for Demonstration Problems
- spreadsheet software for calculations in computerised form.

Teaching Strategies:

To make students understand the concepts of foreign Exchange Market and different aspects of Exchange Rates and how exchange rates are determined.

Assessment:

- Class test
- Assignment
- Presentation
- Group Discussion

Class/Lesson Plan: INTRODUCTION TO RESEARCH METHODOLOGY

Name of the Teacher: Dr. Sushobhan Sengupta

Course Title – RESEARCH METHODOLOGY

Lesson Title - INTRODUCTION TO RESEARCH METHODOLOGY

Specific Objective— Meaning, Objectives, Types of Research, Importance, Approaches, Research Process, criteria of a good Research. Features of a good Design, Different Research, Designs, and Basic Principles of Experimental Designs

Performance Objectives:

• To understand the need of Research and Research Methodology in Business and in social science studies.

Materials Needed:

- Projection system
- Board, marker and Duster for Demonstration

Teaching Strategies:

To make students understand the concepts of Research, its Importance, different Approaches, Research Process, criteria of a good Research. Different Research Design, Basic Principles of Experimental research Design.

Assessment:

- Class test
- Assignment
- Presentation
- Group Discussion

Class/Lesson Plan: SAMPLING DESIGN

Name of the Teacher: Dr. Sushobhan Sengupta

Course Title – RESEARCH METHODOLOGY

Lesson Title - SAMPLING DESIGN

Specific Objective— Census Vs Sample survey, steps in sampling Design, Criteria for selecting a sampling procedure, Types of Sample Design, Simple Vs Complex Random Sampling Designs & Techniques.

Performance Objectives:

• To understand the need of sampling in Research and various techniques of sampling and different sampling designs.

Materials Needed:

- Projection system
- Board, marker and Duster for Demonstration

Teaching Strategies:

Relevance and implication of census and sample survey, Types of Sample Design, Simple Vs Complex Random Sampling Designs & Techniques.

Assessment:

- Class test
- Assignment
- Presentation
- Group Discussion

Class/Lesson Plan: COST CONCEPTS, CLASSIFICATION and COST SHEET

Name of the Teacher: Dr. Sushobhan Sengupta

Course Title - COST ACCOUNTING

Lesson Title - COST CONCEPTS, CLASSIFICATION and COST SHEET

Specific Objective– Meaning of cost, Nature of cost. Importance of classification of cost. Various types of costs, Meaning, Importance of cost sheet, Items of cost sheet, Method of cost sheet

Performance Objectives:

- To understand the Meaning, Nature and Need of Cost and Cost Classification.
- To Understand the various Items in Cost Sheet and its methods

Materials Needed:

- Projection system
- Board, marker and Duster for Demonstration
- Spreadsheet for demonstration

Teaching Strategies:

Relevance and implication of cost and cost sheet for Management decision making, Types of cost, Methods of Cost Sheet.

Assessment:

- Class test
- Assignment
- Presentation
- Group Discussion

Class/Lesson Plan: Marginal Accounting and Cost-Volume-Profit-Analysis

Name of the Teacher: Dr. Sushobhan Sengupta

Course Title - COST ACCOUNTING

Lesson Title - Marginal Accounting and Cost-Volume-Profit-Analysis

Specific Objective– Learn to use these classifications to analyse the relationship among costs, volume, and profit.

Performance Objectives:

- Identify accounting concepts and practices related to preparing accounting information for management decisions;
- Compute the contribution margin;
- Prepare a contribution income statement;
- Calculate the contribution margin ratio;
- Compute the break-even point in units and Sales value;
- Calculate the target profit and margin of safety;
- Define the accounting terms related to the lesson.

Materials Needed:

- Projection system
- Board for Demonstration Problems
- spreadsheet software for calculations in computerised form.

Teaching Strategies:

Practice Work- Identifying CVP Relationships; Preparing a Contribution; Calculating Break-Even Point; Calculating Contribution, Margin Ratio, Break-Even Point, and Target Sales; Analysing Changes in Variable Costs and Sales; Analysing Changes in Fixed Costs, Selling Price, and Sales; Decision Making: Make or Buy; Accept or reject; etc.

Assessment:

- Class test
- Assignment
- Presentation
- Group Discussion

Lesson Plan

Subject :- Business Environment 204C

Batch :- 2021-2024 **Subject :-** Business Environment **Subject Code :-** 204C **Topic:-** Problem

of Growth Unit:-4

Lesson Focus:-

The main Focus of this chapter is to help students to understand :-

Unemployment, Poverty, Regional Imbalance, Social Inequality, Inflation and Industrial Sickness.

Lesson Objective and Goals:-

To understand different issues which is hampering economic growth of country. Any country growth and crisis is depend upon the income level of that particular place. To understand how unemployment poverty is creating issues in the economic condition. Social Inequality and Regional Imbalances is also biggest factor of problem. Here we need to learn about Industrial Sickness and reason for inflation.

Teaching Strategies:-

Blackboard, Whiteboard, Power Point Presentation, Study Materials, Subject Books

Assessment :-

Class Test, Assignment, Quiz.

References:-

Essentials of Business Environment by K. Aswathappa from Himalaya Publishing House. Business Environment by Shaikh Saleem from Person.

Business Ethics & Professional Values by A. B. Rao from Excel Book.

Lesson Plan

Subject :- Business Environment 204C

Batch :- 2021-2024 **Subject :-** Business Environment **Subject Code :-** 204C **Topic:-** Role of Government **Unit :-** 5

Lesson Focus:-

The main Focus of this chapter is to help students to understand :-

Monetary and Fiscal Policies, Industrial Policies, Industrial Licensing, Trade Policy, NITI Aayog.

Lesson Objective and Goals:-

To understand different policies of Govt. which will help business world to grow.

To understand Monetary and Fiscal Policies which is the main pillar of economic growth.

To learn Industrial Policies which will help new entrepreneur for running Industries in a smooth Manner.

To understand Industrial Licensing, trade Policy, Private Investment and NITI Aayog.

The main aim is to understand the role of Govt. for economic development with the help of different policies which will ensure smooth run of Industries and in establishing and running smooth industries and manufacturing units.

Teaching Strategies:-

Blackboard, Whiteboard, Power Point Presentation, Study Materials, Subject Books

Assessment:-

Class Test, Assignment, Quiz.

References:-

Essentials of Business Environment by K. Aswathappa from Himalaya Publishing House. Business Environment by Shaikh Saleem from Person.

Business Ethics & Professional Values by A. B. Rao from Excel Book.

Lesson Plan

Subject :- Marketing Management 402C

Lesson Focus:-

The main Focus of this chapter is to help students to understand:-Ethics & Marketing, Ethical Decision Making Process, Distribution Management and Ethics, Promotion, Product and Pricing.

Lesson Objective and Goals:-

To understand different issues of ethics in Marketing. Here the focus is on ethical marketing instead, then it will be able to maximise customer satisfaction and maintain consumer trust and brand credibility. Ethical marketing should always aim to be honest and fair. Unethical practices will not guarantee you more sales or necessarily cut costs in the long – term.

Teaching Strategies:-

Blackboard, Whiteboard, Power Point Presentation, Study Materials, Subject Books

Assessment :-

Class Test, Assignment, Quiz.

References:-

Marketing Management by Kotler , Keller , Marketing Management by Tapn K. Panda, Marketing management by Chris Fill , Paul Baines.

Lesson Plan

Subject :- Human Resource Management 2 403C

Batch :- 2020-2023 **Subject :-** Human Resource Management 2 **Subject Code :-** 403C **Topic:** Industrial Dispute Management **Unit :-** 4

Lesson Focus:-

The main Focus of this chapter is to help students to understand :-

Industrial Relations :- Concept, scope, objectives, Importance , causes for poor industrial Relations, Developing sound Industrial Relations, Industrial Dispute:- Concept , forms, causes, prevention, settlement .

Lesson Objective and Goals:-

To provide suitable machinery for the equitable and peaceful settlement of industrial disputes. To prevent illegal strikes and lockouts. To afford relief to workers against layoffs, retrenchment, wrongful dismissal and victimisation. To promote collective bargaining.

Teaching Strategies:-

Blackboard, Whiteboard, Power Point Presentation, Study Materials, Subject Books

Assessment :-

Class Test, Assignment, Quiz.

References:-

Human Resource Management by K. Aswathappa from Tata Mcgraw Hills, Human Resource Management by N.K.Singh from Excel Books.

Lesson Plan

Subject :- Human Resource Management 403C

Batch :- 2020-2023 **Subject :-** Human Resource Management 2 **Subject Code :-** 403C **Topic:**-Job Stress, Counselling, Mentoring **Unit :-** 5

Lesson Focus:-

The main Focus of this chapter is to help students to understand :-

Meaning, nature, symptoms, causes & management of stress, Introduction, objectives, benefits of counselling and mentoring.

Lesson Objective and Goals:-

To understand the reason behind stress in work place, how to overcome stress and stay positively in the organisation . What is the role of mentor, how mentor will guide u in any wrong path . To understand how counselling will help you to overcome stress and problems in organization.

Teaching Strategies:-

Blackboard, Whiteboard, Power Point Presentation, Study Materials, Subject Books

Assessment:-

Class Test, Assignment, Quiz.

References:-

Human Resource Management by K. Aswathappa from Tata Mcgraw Hills, Human Resource Management by N.K.Singh from Excel Books.

Lesson Plan

Subject :- Entrepreneurship Development and Small Business Fundamentals

Batch: - 2020-2023 Subject: - Entrepreneurship Development and Small Business

Fundamentals Subject Code: 405C Topic: Government and Non – Government Policies

Unit :- 5

Lesson Focus:-

The main Focus of this chapter is to help students to understand :-

National Policies & Incentives, Subsidies by Central & State Govt. Role of IDBI, NABARD, SIDBI, etc.

Lesson Objective and Goals:-

To understand all policies which are made for helping new entrepreneur. New ventures get advantages to start new business by the help of govt new schemes. Here all can understand how entrepreneurs get subsidies by Central and State Govt.

Teaching Strategies:-

Blackboard, Whiteboard, Power Point Presentation, Study Materials, Subject Books

Assessment :-

Class Test, Assignment, Quiz.

References:-

Management and Entrepreneurship by Kanishka Bedi from Oxford university Press, Small Scale Industries and Entrepreneurship by Vasant Desai by Himalaya Publication.

Lesson Plan

Subject :- Service Marketing 601 C

Batch :- 2019-2022 **Subject :-** Service Marketing **Subject Code :-** 601C **Topic:-** Service

Marketing -II **Unit** :- 4

Lesson Focus:-

The main focus will be in understanding People, Process and Physical Evidence. The challenges of managing people or measuring productivity of people in Service Organization. Here, focus is in introduction, services cape, Managing Demand and supply. We will learn about the process part where Service Blueprinting, Managing Demand and Supply will be their.

Lesson Objective and Goals:-

To understand how we can manage people and measure the productivity of people in service market. To understand the physical evidence requirement and how we manage physical evidence in corporate world. Here the objective is to learn process will help to fulfil the assign job of everyone.

Teaching Strategies:-

Blackboard, Whiteboard, Power Point Presentation, Study Materials, Subject Books

Assessment :-

Class Test, Assignment, Quiz.

References:-

Service Marketing by Rajendra Nargundkar from TATA Mcgraw Hill, Service Marketing from Govind Apte from Oxford University Press.

Lesson Plan

Subject :- Service Marketing 601 C

Batch:- 2019-2022 **Subject**:-Service Marketing **Subject Code**:- 601C **Topic**:- Application

of Service Marketing Unit: --5

Lesson Focus:-

The main Focus of this chapter is to help students to understand:-Marketing of Financial, Hospitality, Medicare, Educational sector and Tourism.

Lesson Objective and Goals:-

To understand all the basic objective of service marketing that is Building Trust, Empowering Service, Delivery Personnel, Establishing Uniform Processes and Promoting Customer satisfaction. We can understand the basic service provided by Finance Department, the services rendered by hospitality management and most important service provider that is medical facility. This chapter will help you in understand how to handle service marketing.

Teaching Strategies:-

Blackboard, Whiteboard, Power Point Presentation, Study Materials, Subject Books

Assessment:-

Class Test, Assignment, Quiz.

References:-

Service Marketing by Govind Apte from Oxford University, Service Marketing by Ravishankar from Excel Books.

Lesson Plan

Subject :- Rural Marketing 602 C

Batch :- 2019-2022 **Subject :-** Rural Marketing **Subject Code :-** 602C **Topic**:- Product & Pricing Strategies **Unit :-** 4

Lesson Focus:-

The main Focus of this chapter is to help students to understand :-

The product concept and the classification of Rural Products, Product decision and strategies, Product branding, Packaging, Product warranty and after sales service, New Product Development. Pricing for Rural India, Setting the price for rural products and services, price setting strategies.

Lesson Objective and Goals:-

A rural customer is **price-sensitive** mainly because of his relatively low level of income and unit price of a product will have an impact on sales. Pricing the product at a lower price really attracts rural population for trying the products.

Teaching Strategies:-

Blackboard, Whiteboard, Power Point Presentation, Study Materials, Subject Books

Assessment :-

Class Test, Assignment, Quiz.

References:-

Rural Marketing by Pradeep Kashyap from Pearson, Rural Marketing by Lalitha Krishnamacharyulu by Pearson.

Lesson Plan

Subject :- Rural Marketing 602 C

Batch: - 2019-2022 **Subject**: - Rural Marketing **Subject Code**: - 602C **Topic**: - Distribution and Communication strategies for Rural Marketing. **Unit**: - 5

Lesson Focus:-

The main Focus of this chapter is to help students to understand :-

Availability: The Challenge and the dilemma, Distribution Channels, the rural retail environment. Channel behaviour in rural areas.

Challenges for Rural Communication, The Communication process: An overview, developing effective rural communication.

Lesson Objective and Goals:-

Companies should focus on the building of **distribution channels** in such a way that every individual in the **rural** setting is able to access their **rural market** products and services. This can be done by developing a multilayer **distribution** system.

Teaching Strategies:-

Blackboard, Whiteboard, Power Point Presentation, Study Materials, Subject Books

Assessment:-

Class Test, Assignment, Quiz.

References:-

Rural Marketing by Pradeep Kashyap from Pearson, Rural Marketing by Lalitha Krishnamacharyulu by Pearson.

Lesson Plan

Subject :- Sales Management & Personal Selling 603 C

Batch: - 2019-2022 Subject: - Sales Management & Personal Selling Subject Code: - 603C

Topic:-Sales Force Evaluation **Unit**:-5

Lesson Focus:-

The main Focus of this chapter is to help students to understand :-

Sales Force Evaluation Process, Purpose of Evaluation, Setting Performance Standards, Gathering Information, Measures of Performance, Appraisal Interviewing.

Lesson Objective and Goals:-

Rural Marketing is a process of encouraging people to live in rural areas and convert their purchasing power into an effective demand for goods and services. Rural marketer helps to provide all kind of facilities to the rural areas and with the aim to **improve their standard of living** and achieving the company's objective

Teaching Strategies:-

Blackboard, Whiteboard, Power Point Presentation, Study Materials, Subject Books

Assessment:-

Class Test, Assignment, Quiz.

References:-

Selling & Sales Management by David Jobber from Pearson , Sales & Distribution Management by Pingali Venugopal from Pearson.

Lesson Plan: Sales Force Management (Unit 3)

Name of Teacher: Mr. Subhajit Paul

Course Title: Sales Management And Personal Selling

Lesson Title: Sales Force Management (Unit 3)

Specific Objective:

➤ Gaining in-depth knowledge of the topics covered in this unit w.r.to managerial prospects and practical implementation through various examples and case analysis.

Performance Objectives:

- ➤ Knowledge about Sales Force Management
- ➤ Identifying the Sources of Sales Force Recruits
- ➤ Understanding Pre Interview Screening, Formal Application Form, The Interview
- ➤ Acquiring information related to Supplementary Selection Aids
- Learning Motivation, Leadership, Training, Conclusions in detail
- Gaining in-depth knowledge about Designing Sales Compensation Plan and Types of Compensation Plans
- ➤ Gaining in-depth knowledge about Fringe Benefits
- Learning how to implement the topics learnt through Case analysis

Materials Needed:

- Projector and proper projection system
- ➤ Board for highlighting points of references

Teaching Strategies:

- > Introduction to Sales Force Management
- ➤ Sources of Sales Force Recruits
- ➤ Pre Interview Screening, Formal Application Form, The Interview
- > Supplementary Selection Aids
- Motivation, Leadership, Training, Conclusions
- ➤ Designing Sales Compensation Plan, Types of Compensation Plans
- > Fringe Benefits
- > Case analysis and discussion

Assessment:

- > Assignment
- Class test
- > Presentation
- ➤ Group Discussion

Lesson Plan: Sales Quotas (Unit 4)

Name of Teacher: Mr. Subhajit Paul

Course Title: Sales Management And Personal Selling

Lesson Title: Sales Quotas (Unit 4)

Specific Objective:

➤ Gaining in-depth knowledge of the topics covered in this unit w.r.to managerial prospects and practical implementation through various examples and case analysis.

Performance Objectives:

- ➤ Knowledge about Sales Quotas
- ➤ Understanding the basic objectives in using Quotas
- ➤ Gaining in-depth knowledge about various types of Sales Quotas
- > Gaining in-depth knowledge about step by step procedure for Quota Setting
- Acquiring information related to administering the Quota Systems
- Learning how to implement the topics learnt through Case analysis

Materials Needed:

- Projector and proper projection system
- > Board for highlighting points of references

Teaching Strategies:

- ➤ Introduction to Sales Quotas
- Objectives in using Quotas
- > Types of Sales Quotas
- Procedure for Quota Setting
- ➤ Administering the Quota Systems
- Case analysis and discussion

Assessment:

- > Assignment
- Class test
- > Presentation
- Group Discussion

Lesson Plan: Rural Marketing: Introduction (Unit 1)

Name of Teacher: Mr. Subhajit Paul

Course Title: Rural Marketing

Lesson Title: Rural Marketing: Introduction (Unit 1)

Specific Objective:

> Gaining in-depth knowledge of the topics covered in this unit w.r.to managerial prospects and practical implementation through various examples and case analysis.

Performance Objectives:

- ➤ Knowledge about Rural Marketing, rural myths,
- ➤ Knowing the rural marketing mix and challenges
- Acquiring information related to evolving rural consumer, evolution of rural marketing, the rural environment, the rural economic environment, the rural infrastructure, the rural boom, rural dividend
- ➤ Gaining in-depth knowledge about Telecommunication in Rural India, Information and Telecommunication technology (ICT) in rural areas, Financial Services in Rural India, Cloud Computing for Rural banking, Rural Healthcare services
- Learning how to implement the topics learnt through Case analysis

Materials Needed:

- Projector and proper projection system
- ➤ Board for highlighting points of references

Teaching Strategies:

- > Introduction to Rural Marketing
- ➤ Defining rural markets, rural myths
- ➤ The rural marketing mix: challenges
- > The evolving rural consumer
- > The evolution of rural marketing
- > The rural environment, the rural economic environment
- The rural infrastructure, The rural Boom, The way forward, Rural Dividend
- ➤ Telecommunication in Rural India, Information and Telecommunication technology (ICT) in rural areas
- Financial Services in Rural India, Cloud Computing for Rural banking
- > Rural Healthcare services
- Case analysis and discussion

Assessment:

- > Assignment
- Class test
- Presentation
- Group Discussion

Lesson Plan: Rural Consumer Behavior (Unit 2)

Name of Teacher: Mr. Subhajit Paul

Course Title: Rural Marketing

Lesson Title: Rural Consumer Behavior (Unit 2)

Specific Objective:

➤ Gaining in-depth knowledge of the topics covered in this unit w.r.to managerial prospects and practical implementation through various examples and case analysis.

Performance Objectives:

- ➤ Knowledge about Rural Consumer Behavior
- Understanding the basic objectives of Rural Consumer Behavior
- Gaining in-depth knowledge about The Consumer buying behavior model and The buyer decision Process
- ➤ Gaining in-depth knowledge about the product adoption process
- Learning how to implement the topics learnt through Case analysis

Materials Needed:

- Projector and proper projection system
- ➤ Board for highlighting points of references

Teaching Strategies:

- ➤ Introduction to Rural Consumer Behavior
- ➤ The Consumer buying behavior model
- ➤ The buyer decision Process
- > The product adoption process
- Case analysis and discussion

Assessment:

- > Assignment
- Class test
- Presentation
- ➤ Group Discussion

Lesson Plan: Segmenting and Targeting Rural Markets (Unit 3)

Name of Teacher: Mr. Subhajit Paul

Course Title: Rural Marketing

Lesson Title: Segmenting and Targeting Rural Markets (Unit 3)

Specific Objective:

> Gaining in-depth knowledge of the topics covered in this unit w.r.to managerial prospects and practical implementation through various examples and case analysis.

Performance Objectives:

- ➤ Knowledge about Segmentation, Targeting, Positioning.
- > Understanding the basic objectives of Segmentation, Targeting, and Positioning.
- ➤ Gaining in-depth knowledge about Segmentation w.r.to rural marketing
- ➤ Gaining in-depth knowledge about Targeting w.r.to rural marketing
- ➤ Gaining in-depth knowledge about Positioning w.r.to rural marketing
- Learning how to implement the topics learnt through Case analysis

Materials Needed:

- Projector and proper projection system
- ➤ Board for highlighting points of references

Teaching Strategies:

- ➤ Introduction to Segmentation, Targeting, Positioning.
- ➤ Segmentation w.r.to rural marketing
- > Targeting w.r.to rural marketing
- > Positioning w.r.to rural marketing
- Case analysis and discussion

Assessment:

- > Assignment
- Class test
- > Presentation
- ➤ Group Discussion

Lesson Plan: Measurement & Scaling Techniques (Unit 3)

Name of Teacher: Mr. Subhajit Paul Course Title: Research Methodology

Lesson Title: Measurement & Scaling Techniques (Unit 3)

Specific Objective:

➤ Gaining in-depth knowledge of the topics covered in this unit w.r.to managerial prospects and practical implementation in research through various examples and case analysis.

Performance Objectives:

- ➤ Knowing the basics of Measurement & Scaling Techniques
- > Knowledge about Measurement in Research
- ➤ In-depth knowledge about Measurement Scales
- > Gaining information related to Errors in Measurement
- ➤ In-depth knowledge about Measurement Tools
- > Introduction and knowledge about Scaling
- ➤ In-depth knowledge about Scale classification Bases and Scale Construction Techniques
- ➤ Learning how to implement the topics learnt through Case analysis

Materials Needed:

- Projector and proper projection system
- ➤ Board for highlighting points of references

Teaching Strategies:

- ➤ Introduction to Measurement & Scaling Techniques.
- ➤ Measurement in Research
- Measurement Scales
- Errors in Measurement
- Measurement Tools
- > Meaning of Scaling
- > Scale classification Bases
- Scale Construction Techniques
- > Case analysis and discussion

Assessment:

- > Assignment
- Class test
- > Presentation
- Group Discussion

Lesson Plan: Methods of Data Collection (Unit 4)

Name of Teacher: Mr. Subhajit Paul Course Title: Research Methodology

Lesson Title: Methods of Data Collection (Unit 4)

Specific Objective:

> Gaining in-depth knowledge of the topics covered in this unit w.r.to managerial prospects and practical implementation in research through various examples and case analysis.

Performance Objectives:

- ➤ Knowing the basics of data and the methods of data collection
- > Knowledge about data and various types of data
- ➤ In-depth knowledge about primary and secondary data and their implementation in research.
- ➤ Gaining information related to questionnaires & schedules and knowing their differences.
- > In-depth knowledge about selecting appropriate data collection method
- ➤ Knowledge about guideline for constructing questionnaire / schedule
- > Gaining information related to guideline for successful interviewing
- ➤ In-depth knowledge about Scale survey & experiment and knowing the differences between them.
- Learning how to implement the topics learnt through Case analysis

Materials Needed:

- > Projector and proper projection system
- ➤ Board for highlighting points of references

Teaching Strategies:

- ➤ Introduction to Data & Methods of Data Collection.
- > Types of data
- Collection of Primary Data
- ➤ Difference between questionnaires & schedules
- > Some other methods of data collection
- Collection of Secondary data
- > Selecting Appropriate data collection method
- ➤ Guideline for Constructing questionnaire / Schedule
- > Guideline for successful interviewing
- ➤ Difference between survey & Experiment
- > Case analysis and discussion

Assessment:

- > Assignment
- Class test
- > Presentation
- > Group Discussion

Lesson Plan: Performance And Potential Appraisal (Unit 1)

Name of Teacher: Mr. Subhajit Paul

Course Title: Human Resource Management 2

Lesson Title: Performance And Potential Appraisal (Unit 1)

Specific Objective:

➤ Gaining in-depth knowledge of the topics covered in this unit w.r.to managerial prospects and practical implementation through various examples and case analysis.

Performance Objectives:

- ➤ Knowing the basics of Performance And Potential Appraisal
- > Understanding the basic objectives and process of Performance And Potential Appraisal
- > In-depth knowledge about the Methods of Performance And Potential Appraisal
- ➤ Gaining information related to the problems associated with Performance And Potential Appraisal
- In-depth knowledge about how to make performance appraisal effective
- ➤ Knowledge about guidelines and the Steps to Appraise Potential
- ➤ Learning how to implement the topics learnt through Case analysis

Materials Needed:

- Projector and proper projection system
- > Board for highlighting points of references

Teaching Strategies:

- ➤ Introduction to Performance And Potential Appraisal
- ➤ Objectives and process of Performance And Potential Appraisal
- ➤ Methods of Performance And Potential Appraisal
- ➤ Problems associated with Performance And Potential Appraisal
- Making Performance Appraisal Effective
- > Steps to Appraise Potential
- > Case analysis and discussion

Assessment:

- > Assignment
- Class test
- > Presentation
- Group Discussion

Lesson Plan: Workers Participation In Management (WPM) (Unit 2)

Name of Teacher: Mr. Subhajit Paul

Course Title: Human Resource Management 2

Lesson Title: Workers Participation In Management (WPM) (Unit 2)

Specific Objective:

➤ Gaining in-depth knowledge of the topics covered in this unit w.r.to managerial prospects and practical implementation through various examples and case analysis.

Performance Objectives:

- ➤ Knowing the basics of Workers Participation In Management
- ➤ Understanding the basic objectives and levels of Workers Participation In Management
- ➤ In-depth knowledge about forms of Workers Participation In Management
- ➤ Gaining information related to the problems associated with Workers Participation In Management
- ➤ In-depth knowledge about Why WPM fails?
- ➤ Knowing the processes of making WPM Effective
- ➤ Learning how to implement the topics learnt through Case analysis

Materials Needed:

- Projector and proper projection system
- ➤ Board for highlighting points of references

Teaching Strategies:

- > Introduction to Workers Participation In Management
- ➤ Objectives of Workers Participation In Management
- Levels of Workers Participation In Management
- Forms of Workers Participation In Management
- > Problems associated with Workers Participation In Management
- ➤ Why WPM fails?
- ➤ Making WPM Effective
- Case analysis and discussion

Assessment:

- > Assignment
- Class test
- > Presentation
- ➤ Group Discussion

Lesson Plan: Employee Grievances Management (Unit 3)

Name of Teacher: Mr. Subhajit Paul

Course Title: Human Resource Management 2

Lesson Title: Employee Grievances Management (Unit 3)

Specific Objective:

➤ Gaining in-depth knowledge of the topics covered in this unit w.r.to managerial prospects and practical implementation through various examples and case analysis.

Performance Objectives:

- ➤ Knowing the basics of employee discipline and employee grievances
- > Understanding the basic concept, features and objectives of employee discipline
- ➤ In-depth knowledge about various types of employee discipline
- > Gaining information related to causes of indiscipline
- ➤ Knowing various approaches for implementing employee discipline
- ➤ In-depth knowledge about Disciplinary Actions & Code of Discipline
- ➤ Understanding the basic concept, form, causes, and effects of employee grievances
- ➤ Idea formulation related to Model Grievance Procedure
- ➤ Knowledge about guideline for handling grievances
- ➤ In-depth knowledge about Absenteeism, its causes and ways to control absenteeism
- ➤ Learning how to implement the topics learnt through Case analysis

Materials Needed:

- Projector and proper projection system
- ➤ Board for highlighting points of references

Teaching Strategies:

- ➤ Introduction to Employee Discipline and Employee Grievances
- > Concept, Features and Objectives of Employee Discipline
- > Types of Employee Discipline
- > Causes of Indiscipline
- > Approaches for implementing Employee Discipline
- ➤ Disciplinary Actions & Code of Discipline
- ➤ Concept, Form, Causes, and Effects of Employee Grievances
- ➤ Model Grievance Procedure
- > Guideline for handling Grievances
- ➤ Absenteeism; Causes and Control.
- Case analysis and discussion

Assessment:

- > Assignment
- Class test
- > Presentation
- > Group Discussion

Lesson Plan: Small Business (Unit 3)

Name of Teacher: Mr. Subhajit Paul

Course Title: Entrepreneurship Development And Small Business Fundamentals

Lesson Title: Small Business (Unit 3)

Specific Objective:

➤ Gaining in-depth knowledge of the topics covered in this unit w.r.to managerial prospects and practical implementation through various examples and case analysis.

Performance Objectives:

- ➤ Knowing the basics of Small Business
- ➤ Knowing the definition and explanation of Small Business as per MSMED Act, 2006
- ➤ Understanding the basic concept, features and objectives of Small Business
- ➤ In-depth knowledge about the significance of Small Business
- > Gaining information related to the problems associated and present position of Small Business
- ➤ Understanding the sickness and its solution in Small Business
- ➤ Learning how to implement the topics learnt through Case analysis

Materials Needed:

- Projector and proper projection system
- ➤ Board for highlighting points of references

Teaching Strategies:

- ➤ Introduction to Small Business
- > Definition and explanation of Small Business as per MSMED Act, 2006
- ➤ Concept, features and objectives of Small Business
- ➤ Significance of Small Business
- ➤ Problems associated and present position of Small Business
- ➤ Sickness in Small Business
- Case analysis and discussion

Assessment:

- > Assignment
- Class test
- > Presentation
- Group Discussion

Lesson Plan: Legal And Tax Considerations (Unit 4)

Name of Teacher: Mr. Subhajit Paul

Course Title: Entrepreneurship Development And Small Business Fundamentals

Lesson Title: Legal And Tax Considerations (Unit 4)

Specific Objective:

➤ Gaining in-depth knowledge of the topics covered in this unit w.r.to managerial prospects and practical implementation through various examples and case analysis.

Performance Objectives:

- ➤ Knowing the basics of Legal And Tax Considerations
- ➤ Knowing the definition and explanation related to Registration, Provisional Registrations, Permanent Registrations, Licensing
- ➤ Understanding the basic concept, features and objectives of Registration, Provisional Registrations, Permanent Registrations, Licensing
- ➤ In-depth knowledge about Tax Benefits under Different Act with Special reference to North East Industrial Investment Promotion Policy (NEIIPP), 2007
- ➤ Learning how to implement the topics learnt through Case analysis

Materials Needed:

- Projector and proper projection system
- ➤ Board for highlighting points of references

Teaching Strategies:

- ➤ Introduction to Legal And Tax Considerations
- > Introduction to and concept, features and objectives of Registration, Provisional Registrations, Permanent Registrations, Licensing.
- ➤ Tax Benefits under Different Act with Special reference to North East Industrial Investment Promotion Policy (NEIIPP), 2007
- > Case analysis and discussion

Assessment:

- > Assignment
- Class test
- Presentation
- ➤ Group Discussion

Lesson Plan: Regression Analysis (Unit 3)

Name of Teacher: Mr. Subhajit Paul

Course Title: Quantitative Techniques For Management

Lesson Title: Regression Analysis (Unit 3)

Specific Objective:

> Gaining in-depth knowledge of the topics covered in this unit w.r.to managerial prospects and practical implementation through various examples and case analysis.

> Strengthening the numerical skills

Performance Objectives:

- ➤ Knowing the basics of Regression Analysis
- ➤ Knowing the definition and explanation related to Regression Analysis
- > Understanding the basic concept, features, objectives and advantages of Regression Analysis
- ➤ Knowing the parameters of simple linear regression model
- ➤ Knowing the managerial implementation of regression equation
- ➤ In-depth knowledge about various methods to determine regression coefficients and to find out regression equations
- ➤ Ability to solve regression equation related problems
- Learning how to implement the topics learnt through Case analysis

Materials Needed:

- Projector and proper projection system
- ➤ Board for highlighting points of references

Teaching Strategies:

- ➤ Introduction to Regression Analysis
- ➤ Advantages of Regression analysis
- > Parameters of simple linear regression model
- ➤ Methods to determine regression coefficients.
- > Solving various problems related to regression analysis.
- Case analysis and discussion

Assessment:

- > Assignment
- Class test
- > Presentation
- Group Discussion

Lesson Plan: Time Series And Forecasting (Unit 4)

Name of Teacher: Mr. Subhajit Paul

Course Title: Quantitative Techniques For Management

Lesson Title: Time Series And Forecasting (Unit 4)

Specific Objective:

➤ Gaining in-depth knowledge of the topics covered in this unit w.r.to managerial prospects and practical implementation through various examples and case analysis.

> Strengthening the numerical skills

Performance Objectives:

- > Knowing the basics of time series and forecasting
- ➤ Knowing the definition and explanation related to time series and forecasting
- Understanding the basic concept, features, objectives and advantages of time series and forecasting
- ➤ Knowing the basics of Trend analysis
- ➤ Gaining knowledge related to variation in time series (Cyclical, seasonal, irregular)
- ➤ In-depth knowledge related to forecasting and its types
- ➤ Knowing the managerial implementation of time series and forecasting
- ➤ Ability to solve time series and forecasting related problems
- ➤ Learning how to implement the topics learnt through Case analysis

Materials Needed:

- Projector and proper projection system
- ➤ Board for highlighting points of references

Teaching Strategies:

- ➤ Introduction to Time Series And Forecasting
- ➤ Advantages of Time Series And Forecasting
- > Trend analysis
- ➤ Variation in time series (Cyclical, seasonal, irregular)
- > Forecasting and its types
- > Solving various problems related to Time Series and Forecasting.
- > Case analysis and discussion

Assessment:

- > Assignment
- Class test
- > Presentation
- ➤ Group Discussion

Lesson Plan: Economic Trends (Unit 3)

Name of Teacher: Mr. Subhajit Paul

Course Title: Business Environment

Lesson Title: Economic Trends (Unit 3)

Specific Objective:

➤ Gaining in-depth knowledge of the topics covered in this unit w.r.to managerial prospects and practical implementation through various examples and case analysis.

Performance Objectives:

- ➤ Knowledge of Economic Trends
- ➤ Knowing the definition, concept, features and objectives of Income
- ➤ Understanding the definition, concept, features and objectives of Savings and Investment
- ➤ Gaining knowledge related to concept, features and objectives of Industry, Money & Finance
- ➤ Understanding the basic concept, features and objectives of Price (an overall idea)
- Learning how to implement the topics learnt through Case analysis

Materials Needed:

- Projector and proper projection system
- ➤ Board for highlighting points of references

Teaching Strategies:

- > Introduction to Economic Trends
- ➤ Introduction to and concept, features and objectives of Income
- Introduction to and concept, features and objectives of Savings and Investment
- Introduction to and concept, features and objectives of Industry, Money & Finance
- Introduction to and concept, features and objectives of Price (an overall idea)
- > Case analysis and discussion

Assessment:

- > Assignment
- Class test
- > Presentation
- > Group Discussion

Lesson Plan: Problems Of Growth (Unit 4)

Name of Teacher: Mr. Subhajit Paul

Course Title: Business Environment

Lesson Title: Problems Of Growth (Unit 4)

Specific Objective:

➤ Gaining in-depth knowledge of the topics covered in this unit w.r.to managerial prospects and practical implementation through various examples and case analysis.

Performance Objectives:

- ➤ Understanding the problems of growth
- > Knowing the definition, concept, features and situation related to unemployment
- Understanding the definition, concept, features and situation related to Poverty Regional Imbalances
- ➤ Knowing the definition, concept, features and situation related to Social Inequality
- > Gaining knowledge related to concept, features and situation related to Inflation
- ➤ Understanding the basic concept, features and situation related to Industrial Sickness
- ➤ Learning how to implement the topics learnt through Case analysis

Materials Needed:

- Projector and proper projection system
- ➤ Board for highlighting points of references

Teaching Strategies:

- > Introduction to problems of growth
- Introduction to and concept, features and situation related to unemployment
- ➤ Introduction to and concept, features and situation related to Poverty Regional Imbalances
- Introduction to and concept, features and situation related to Social Inequality
- > Introduction to and concept, features and situation related to Inflation
- ➤ Introduction to and concept, features and situation related to Industrial Sickness
- > Case analysis and discussion

Assessment:

- > Assignment
- Class test
- > Presentation
- ➤ Group Discussion

Holy Cross College, Agartala

Lesson Plan (Academic Year 2021-22)

Name of Teacher:	Mrs Sriparna Roy
Name of the Department:	Department of Business Administration
Semester:	2 nd
Course Title:	Organizational Behaviour (203C)
	Unit-I: Introduction to OB
	Unit-II: Personality with Emphasis on Emotions and Moods
Lesson Title:	Unit-III: Perception and Motivation
	Unit-IV: Attitudes and Values
	Unit-V: Learning
Overall Objectives:	> To understand the basic aspects of OB
	> To understand the concept and theories of perception and
	motivation
	To understand the role of attitudes and values in human life
	➤ To understand the basic theories of learning process
Resources:	Blackboard, Whiteboard, Power Point Presentation, Study Materials,
	Text Book
Teaching Strategies:	Blended Mode of Learning
Assessment:	Class Test/Assignment/Presentation/Group Discussion
Revision/Remedial Classes:	As per Requirement
References	Organizational Behaviour: By S.S Khanka, S Chand & Company Ltd
	Organizational Behaviour: By K.Aswathapa, Himalaya Publications

Holy Cross College, Agartala

Lesson Plan (Academic Year 2021-22)

Name of Teacher:	Mrs Sriparna Roy
Name of the Department:	Department of Business Administration
Semester:	4th
Course Title:	Operations Management(404C)
	Unit-I: Operations Management: Trends and Issues
	Unit-II: Total quality Management
Lesson Title:	Unit-III:Facilities Location
	Unit-IV:Inventory Control and Six-Sigma
	Unit-V:Scheduling of Operations
Overall Objectives:	➤ To understand the concept, trends and issues of operations
	 management To understand the applications of different theories in business To understand the methods of inventory control and six-sigma To understand the process and applications of scheduling of operations
Resources:	Blackboard, Whiteboard, Power Point Presentation, Study Materials, Text Book
Teaching Strategies:	Blended Mode of Learning
Assessment:	Class Test/Assignment/Presentation/Group Discussion
Revision/Remedial Classes:	As per Requirement
References	Operations Management: Theory and Practice: By
	B.Mahadevan,Pearson Education
	Production and operations management: By S.A
	Chunnawala, Himlaya Publishing House

Lesson Plan (Academic Year 2021-22)

Name of Teacher:	Mrs Sriparna Roy
Name of the Department:	Department of Business Administration
Semester:	6th
Area of specialization:	Finance
Course Title:	Banking and Insurance (606C)
	Unit-I: Introduction to Banking
	Unit-II: Reserve Bank of India
Lesson Title:	Unit-III:Commercial Banking in India
	Unit-IV:Introduction To Insurance
	Unit-V:Indian Insurance Market
Overall Objectives:	 To understand the overall financial system of India To understand the conceptual view and comprehensive insight into the banking and insurance system of India To understand the role and functions of Banks and Insurance in Indian Economy
Resources:	Blackboard, Whiteboard, Power Point Presentation, Study Materials, Text Book
Teaching Strategies:	Blended Mode of Learning
Assessment:	Class Test/Assignment/Presentation/Group Discussion
Revision/Remedial Classes:	As per Requirement
References	Bank Management: By Vasant Desai, Himalaya Publishing House Indian Financial System: By Nayak and Sana Fundamentals of Insurance: By P.K Gupta, Himalaya Publishing House Banking and Insurance: By Tripathy www.rbi.org.in/www.irdai.gov.in

Lesson Plan: Advertising (Unit 1)

Name of Teacher: Mr. Subhajit Paul

Course Title: Advertising And Sales Promotion

Lesson Title: Advertising (Unit 1)

Specific Objective:

➤ Gaining in-depth knowledge of the topics covered in this unit w.r.to managerial prospects and practical implementation through various examples and case analysis.

Performance Objectives:

- ➤ Knowledge about Advertising, its nature, importance and functions
- > Gaining in-depth knowledge about various types of Advertising
- > Understanding the economic aspects of advertising
- Acquiring information about the legal and ethical aspects of advertising
- > Understanding the criticism of advertising
- > Gaining in-depth knowledge about setting advertising objectives and budget
- ➤ Gaining in-depth knowledge about advertising and communication (communication model basic and advertising communication model)
- ➤ Learning the role of source, encoding & decoding of messages, media, audience, feedback, noise
- Learning how to implement the topics learnt through Case analysis

Materials Needed:

- Projector and proper projection system
- ➤ Board for highlighting points of references

Teaching Strategies:

- Introduction to Advertising, its Nature and Importance, Different Advertising Functions
- > Types of Advertising
- > Economic Aspects of Advertising
- ➤ Legal and Ethical Aspects of Advertising
- Criticism of Advertising
- > Setting Advertising Objectives and Budget
- ➤ Advertising and Communication (Communication Model Basic and Advertising Communication Model)
- ➤ Role of Source, Encoding & Decoding of Messages, Media, Audience, Feedback, Noise
- Case analysis and discussion

Assessment:

- > Assignment
- Class test
- > Presentation
- Group Discussion

Lesson Plan: Advertising (Unit 2)

Name of Teacher: Mr. Subhajit Paul

Course Title: Advertising And Sales Promotion

Lesson Title: Advertising (Unit 2)

Specific Objective:

➤ Gaining in-depth knowledge of the topics covered in this unit w.r.to managerial prospects and practical implementation through various examples and case analysis.

Performance Objectives:

- ➤ Knowledge about creative aspects of advertising
- ➤ Understanding the way of Planning and Managing Creative Strategy, Copy (Concept, How to Write Copy for Print and Broadcast Media)
- ➤ Gaining in-depth knowledge about Advertising Appeals
- ➤ Gaining in-depth knowledge about Layout Planning
- ➤ Learning how to implement the topics learnt through Case analysis

Materials Needed:

- Projector and proper projection system
- ➤ Board for highlighting points of references

Teaching Strategies:

- ➤ Introduction to Creative aspects of Advertising
- ➤ The Planning and Managing Creative Strategy, Copy (Concept, How to Write Copy for Print and Broadcast Media)
- ➤ Advertising Appeals
- > Layout Planning
- > Case analysis and discussion

Assessment:

- > Assignment
- ➤ Class test
- > Presentation
- Group Discussion

Lesson Plan: Advertising (Unit 3)

Name of Teacher: Mr. Subhajit Paul

Course Title: Advertising And Sales Promotion

Lesson Title: Advertising (Unit 3)

Specific Objective:

➤ Gaining in-depth knowledge of the topics covered in this unit w.r.to managerial prospects and practical implementation through various examples and case analysis.

Performance Objectives:

- ➤ Knowledge about advertising media and planning
- > Gaining in-depth knowledge about different types of media
- ➤ Acquiring information related to media planning and scheduling and advertising campaign planning
- > Gaining in-depth knowledge about roles of advertising agency, its types, function and layout
- ➤ Learning about advertising agency and client relationship
- > Acquiring information related to impact of advertising, consumer behaviour and advertisement
- ➤ Knowledge about cultural, social and behavioural influence on consumer decision

Materials Needed:

- Projector and proper projection system
- > Board for highlighting points of references

Teaching Strategies:

- > Introduction to advertising media and planning
- > Different types of media, media planning and scheduling
- > Advertising campaign planning
- Introduction to roles of advertising agency, its types, function, layout
- ➤ Advertising Agency and Client Relationship
- > Impact of Advertising: Consumer Behaviour and Advertisement
- ➤ Cultural, Social and Behavioural Influence on Consumer Decision
- > Case analysis and discussion

Assessment:

- > Assignment
- Class test
- > Presentation
- ➤ Group Discussion

Lesson Plan: Sales Promotion (Unit 1)

Name of Teacher: Mr. Subhajit Paul

Course Title: Advertising And Sales Promotion

Lesson Title: Sales Promotion (Unit 1)

Specific Objective:

➤ Gaining in-depth knowledge of the topics covered in this unit w.r.to managerial prospects and practical implementation through various examples and case analysis.

Performance Objectives:

- ➤ Knowledge about Sales Promotion, its nature, function, limitations
- ➤ Understanding the basic reasons for rapid growth of sales promotion
- ➤ Gaining in-depth knowledge about types of sales promotion schemes
- ➤ Gaining in-depth knowledge about sales promotion objectives, pull and push strategies, sales promotion and consumer behaviour: theories (classical conditioning, instrumental conditioning, dissonance theory)
- ➤ Knowledge about consumer decision making related to sales promotion
- Learning how to implement the topics learnt through Case analysis

Materials Needed:

- Projector and proper projection system
- ➤ Board for highlighting points of references

Teaching Strategies:

- Introduction, concept, nature, function, limitations of sales promotion
- > Reasons for rapid growth
- > Types of sales promotion schemes
- > Sales promotion objectives, pull and push strategies
- ➤ Sales promotion and consumer behaviour: Theories (classical conditioning, instrumental conditioning, dissonance theory)
- ➤ Consumer decision making related to sales promotion
- > Case analysis and discussion

Assessment:

- > Assignment
- Class test
- > Presentation
- ➤ Group Discussion

Lesson Plan: Sales Promotion (Unit 2)

Name of Teacher: Mr. Subhajit Paul

Course Title: Advertising And Sales Promotion

Lesson Title: Sales Promotion (Unit 2)

Specific Objective:

➤ Gaining in-depth knowledge of the topics covered in this unit w.r.to managerial prospects and practical implementation through various examples and case analysis.

Performance Objectives:

- ➤ Knowledge about sales promotion design: promotion choice, approaches, product choice, market areas, timing, duration and frequency.
- ➤ Gaining in-depth knowledge about Sales Promotion Budget: Concept, Various Techniques of Fund Allocation
- > Understanding the characteristics of successful sales promotion; sales promotion effectiveness
- ➤ Gaining in-depth knowledge about Sales Promotion Schemes: Sample, Coupon, Price Off, Premium, Contests, POP, Trade Fairs and Exhibitions, Internet Promotion
- Learning how to implement the topics learnt through Case analysis

Materials Needed:

- Projector and proper projection system
- ➤ Board for highlighting points of references

Teaching Strategies:

- ➤ Introduction to Sales Promotion Design: Promotion Choice, Approaches, Product Choice, Market Areas, Timing, Duration and Frequency.
- ➤ Sales Promotion Budget: Concept, Various Techniques of Fund Allocation; Characteristics of Successful Sales Promotion;
- > Sales Promotion Effectiveness
- ➤ Sales Promotion Schemes: Sample, Coupon, Price Off, Premium, Contests, POP, Trade Fairs and Exhibitions, Internet Promotion
- > Case analysis and discussion

Assessment:

- > Assignment
- Class test
- > Presentation
- Group Discussion

Lesson Plan: Marketing Research Management (Unit 2)

Name of Teacher: Mr. Subhajit Paul

Course Title: Marketing Research

Lesson Title: Marketing Research Management (Unit 2)

Specific Objective:

> Gaining in-depth knowledge of the topics covered in this unit w.r.to managerial prospects and practical implementation in research through various examples and case analysis.

Performance Objectives:

- ➤ Knowing the basics importance of research management and qualities of a marketing research manager
- ➤ In-depth knowledge about organising marketing research function, evaluation and control of marketing research
- ➤ Knowing the difference between Market Research versus Marketing Research
- > Gaining in-depth knowledge related to marketing research and marketing management
- Learning how to implement the topics learnt through Case analysis

Materials Needed:

- Projector and proper projection system
- > Board for highlighting points of references

Teaching Strategies:

- ➤ Introduction to Importance of Research Management and Qualities of a Marketing Research Manager.
- > Organising Marketing Research Function, Evaluation and Control of Marketing Research
- ➤ Market Research versus Marketing Research
- ➤ Marketing Research and Marketing Management
- > Case analysis and discussion

Assessment:

- > Assignment
- Class test
- Presentation
- > Group Discussion

Lesson Plan: Data Collection, Sampling and Interviewing (Unit 3)

Name of Teacher: Mr. Subhajit Paul

Course Title: Marketing Research

Lesson Title: Data Collection, Sampling and Interviewing (Unit 3)

Specific Objective:

➤ Gaining in-depth knowledge of the topics covered in this unit w.r.to managerial prospects and practical implementation in research through various examples and case analysis.

Performance Objectives:

- ➤ Knowing the basics of Secondary Data (Evaluating Secondary Data, Sources of Secondary Data)
- ➤ Knowing the basics of Primary Data, Collection of Primary Data (Observation, Methods of Observation, Questionnaire, Designing questionnaire, Choice of Survey Method)
- ➤ In-depth knowledge about Sampling Designs (Some Basic Terms, Estimation and Testing of Hypothesis, Advantages & Limitations of Sampling, The Sampling Process, Types of Sample Design, Characteristics of a Good Sample Design)
- > In-depth knowledge about primary and secondary data and their implementation in research.
- ➤ Gaining information related to Interviewing: Conditions for a successful Interview, Selection for Interviewers, Training of Interviewers.
- > In-depth knowledge about selecting appropriate data collection method
- ➤ Knowledge about Qualitative Research
- ➤ Learning how to implement the topics learnt through Case analysis

Materials Needed:

- Projector and proper projection system
- ➤ Board for highlighting points of references

Teaching Strategies:

- ➤ Introduction to Secondary Data (Evaluating Secondary Data, Sources of Secondary Data).
- ➤ Collection of Primary Data (Observation, Methods of Observation, Questionnaire, Designing questionnaire, Choice of Survey Method)
- ➤ Sampling Designs (Some Basic Terms, Estimation and Testing of Hypothesis, Advantages & Limitations of Sampling. The Sampling Process, Types of Sample Design, Characteristics of a Good Sample Design)
- ➤ Interviewing: Conditions for a successful Interview, Selection for Interviewers, Training of Interviewers, Qualitative Research
- Case analysis and discussion

Assessment:

- > Assignment
- Class test
- Presentation
- > Group Discussion

Lesson Plan: Marketing Psychology & Consumer Buying Behaviour (Unit 3)

Name of Teacher: Mr. Subhajit Paul

Course Title: Marketing Management 1

Lesson Title: Marketing Psychology & Consumer Buying Behaviour (Unit 3)

Specific Objective:

➤ Gaining in-depth knowledge of the topics covered in this unit w.r.to managerial prospects and practical implementation through various examples and case analysis.

Performance Objectives:

- ➤ Knowing the Creating customer value, Satisfaction & Loyalty
- ➤ In-depth knowledge about Model of Consumer Behavior
- ➤ Gaining information understanding the basic objectives related to the consumers use or disposal of products
- ➤ In-depth knowledge about Business Buying Process
- Learning how to implement the topics learnt through Case analysis

Materials Needed:

- Projector and proper projection system
- ➤ Board for highlighting points of references

Teaching Strategies:

- ➤ Introduction to Creating customer value, Satisfaction & Loyalty
- ➤ Model of Consumer Behavior
- > Consumers use or Disposal of Products
- Business Buying Process
- Case analysis and discussion

Assessment:

- > Assignment
- Class test
- > Presentation
- ➤ Group Discussion

Lesson Plan: Identifying Market Segments and Targets (Unit 4)

Name of Teacher: Mr. Subhajit Paul
Course Title: Marketing Management 1

Lesson Title: Identifying Market Segments and Targets (Unit 4)

Specific Objective:

➤ Gaining in-depth knowledge of the topics covered in this unit w.r.to managerial prospects and practical implementation through various examples and case analysis.

Performance Objectives:

- ➤ Knowing the basics of Segment Marketing, Niche Marketing, Local Marketing, Individual Marketing
- ➤ In-depth knowledge about Consumer Market Segmentation Bases and Business Market Segmentation Bases
- > Gaining information related to Market Targeting
- ➤ In-depth knowledge related to Market Fragmentation and Consolidation
- Learning how to implement the topics learnt through Case analysis

Materials Needed:

- Projector and proper projection system
- ➤ Board for highlighting points of references

Teaching Strategies:

- ➤ Introduction to Segment Marketing, Niche Marketing, Local Marketing, Individual Marketing
- Consumer Market Segmentation Bases and Business Market Segmentation Bases
- ➤ Market Targeting
- ➤ Market Fragmentation and Consolidation
- Case analysis and discussion

Assessment:

- > Assignment
- Class test
- > Presentation
- ➤ Group Discussion

Lesson Plan: Dealing with Competition (Unit 5)

Name of Teacher: Mr. Subhajit Paul

Course Title: Marketing Management 1

Lesson Title: Dealing with Competition (Unit 5)

Specific Objective:

➤ Gaining in-depth knowledge of the topics covered in this unit w.r.to managerial prospects and practical implementation through various examples and case analysis.

Performance Objectives:

- ➤ Knowing the basics of how to identify and analyze competitors
- ➤ In-depth knowledge about competitive strategies for market leaders
- ➤ Gaining information related to other competitive strategies
- ➤ Learning how to implement the topics learnt through Case analysis

Materials Needed:

- Projector and proper projection system
- ➤ Board for highlighting points of references

Teaching Strategies:

- ➤ Introduction to how to identify and analyze competitors
- ➤ Competitive strategies for market leaders
- ➤ Other competitive strategies
- Case analysis and discussion

Assessment:

- > Assignment
- Class test
- > Presentation
- > Group Discussion

Lesson Plan: Indian Contract Act, 1872 (Unit 1)

Name of Teacher: Mr. Subhajit Paul

Course Title: Business Law

Lesson Title: Indian Contract Act, 1872 (Unit 1)

Specific Objective:

➤ Gaining in-depth knowledge of the topics covered in this unit w.r.to managerial prospects and practical implementation through various examples and case analysis.

Performance Objectives:

- ➤ Knowing the basics of Business Law, Indian Contract Act 1872, Essentials of a valid contract, classification of contract according to their enforceability, Formation and Performance, offer and Acceptance, consideration, capacity to contract
- ➤ In-depth knowledge about Free consent Coercion, Undue influence, void voidable unenforceable and illegal Agreements'
- Knowledge about discharge of contract termination of contract, Preach of contract -Remedies, Damages
- ➤ Gaining information related to Indemnity, guarantee
- Learning how to implement the topics learnt through Case analysis / Examples

Materials Needed:

- Projector and proper projection system
- ➤ Board for highlighting points of references

Teaching Strategies:

- ➤ Introduction to Business Law, Indian Contract Act 1872, essentials of a valid contract, classification of contract according to their enforceability, Formation and Performance, offer and Acceptance, consideration, capacity to contract
- > Free consent Coercion, Undue influence, void voidable unenforceable and illegal Agreements'
- ➤ Discharge of contract termination of contract, Preach of contract Remedies, Damages
- ➤ Indemnity, guarantee
- Case analysis and discussion

Assessment:

- > Assignment
- Class test
- > Presentation
- Group Discussion

Lesson Plan: Sale of Goods Act, 1930 (Unit 2)

Name of Teacher: Mr. Subhajit Paul

Course Title: Business Law

Lesson Title: Sale of Goods Act, 1930 (Unit 2)

Specific Objective:

➤ Gaining in-depth knowledge of the topics covered in this unit w.r.to managerial prospects and practical implementation through various examples and case analysis.

Performance Objectives:

- ➤ Knowing the basics of Sale of Goods Act, 1930
- ➤ In-depth knowledge about formation of contracts of sale, goods and their classification, price, conditions and warranties, transfer of property in goods
- ➤ In-depth knowledge about performance of the contract of sale, unpaid seller and his rights, sale by auction, hire purchase agreement
- ➤ Gaining information related to Sales & Agreement to Sale
- Learning how to implement the topics learnt through Case analysis / Examples

Materials Needed:

- Projector and proper projection system
- ➤ Board for highlighting points of references

Teaching Strategies:

- ➤ Introduction to Sale of Goods Act, 1930
- Formation of contracts of sale, goods and their classification, price, conditions and warranties, transfer of property in goods
- ➤ Performance of the contract of sale, unpaid seller and his rights, sale by auction, hire purchase agreement
- ➤ Sales & Agreement to Sale
- > Case analysis and discussion

Assessment:

- > Assignment
- Class test
- Presentation
- ➤ Group Discussion

Lesson Plan: Negotiable Instruments Act, 1881 (Unit 3)

Name of Teacher: Mr. Subhajit Paul

Course Title: Business Law

Lesson Title: Negotiable Instruments Act, 1881 (Unit 3)

Specific Objective:

➤ Gaining in-depth knowledge of the topics covered in this unit w.r.to managerial prospects and practical implementation through various examples and case analysis.

Performance Objectives:

- ➤ Knowing the basics of Negotiable Instruments Act, 1881, Definitions and features of different types of negotiable instruments (promissory note, bill of exchange and cheque)
- > In-depth knowledge about parties to a negotiable instrument and their capacity, holder and holder in due course, crossing of a cheque
- ➤ In-depth knowledge about types of crossing, Banker and Customer, negotiation
- > Gaining information related to Dishonour and discharge of negotiable instrument
- Learning how to implement the topics learnt through Case analysis / Examples

Materials Needed:

- Projector and proper projection system
- ➤ Board for highlighting points of references

Teaching Strategies:

- ➤ Introduction to Negotiable Instruments Act, 1881, Definitions and features of different types of negotiable instruments (promissory note, bill of exchange and cheque)
- > Parties to a negotiable instrument and their capacity, holder and holder in due course, crossing of a cheque
- > Types of crossing, Banker and Customer, negotiation
- > Dishonour and discharge of negotiable instrument
- > Case analysis and discussion

Assessment:

- > Assignment
- Class test
- > Presentation
- ➤ Group Discussion

Lesson Plan: Study of Organization (Unit 3)

Name of Teacher: Mr. Subhajit Paul Course Title: Organizational Behavior 2

Lesson Title: Study of Organization (Unit 3)

Specific Objective:

➤ Gaining in-depth knowledge of the topics covered in this unit w.r.to managerial prospects and practical implementation through various examples and case analysis.

Performance Objectives:

- ➤ Knowing the basics concept of organization, its types, importance, and in-depth knowledge about Organisational Designs (Simple, Bureaucracy and Matrix)
- ➤ In-depth knowledge about New Designs (Team Structure, Virtual Organisation)
- Learning how to implement the topics learnt through Case analysis

Materials Needed:

- Projector and proper projection system
- ➤ Board for highlighting points of references

Teaching Strategies:

- > Introduction to the concept of organization, its types, importance, and in-depth knowledge about Organisational Designs (Simple, Bureaucracy and Matrix)
- ➤ New Designs (Team Structure, Virtual Organisation)
- > Case analysis and discussion

Assessment:

- > Assignment
- ➤ Class test
- > Presentation
- ➤ Group Discussion

Lesson Plan: Organisational Change and Development (Unit 4)

Name of Teacher: Mr. Subhajit Paul

Course Title: Organizational Behavior 2

Lesson Title: Organisational Change and Development (Unit 4)

Specific Objective:

➤ Gaining in-depth knowledge of the topics covered in this unit w.r.to managerial prospects and practical implementation through various examples and case analysis.

Performance Objectives:

- ➤ Knowing the basics concept of Organizational Effectiveness, Change and Development
- ➤ In-depth knowledge about Approaches to Manage Organisational Change and Development (Lewin 3 Stage Model, Action Research, OD)
- ➤ In-depth knowledge about Organisational Change and Development in Indian Scenario
- ➤ Learning how to implement the topics learnt through Case analysis

Materials Needed:

- Projector and proper projection system
- ➤ Board for highlighting points of references

Teaching Strategies:

- Introduction to the concept of Organizational Effectiveness, Change and Development
- ➤ Approaches to Manage Organisational Change and Development (Lewin 3 Stage Model, Action Research, OD)
- Organisational Change and Development in Indian Scenario
- > Case analysis and discussion

Assessment:

- > Assignment
- Class test
- Presentation
- ➤ Group Discussion

Lesson Plan: Some well known studies (Unit 5)

Name of Teacher: Mr. Subhajit Paul

Course Title: Organizational Behavior 2

Lesson Title: Some well known studies (Unit 5)

Specific Objective:

> Gaining in-depth knowledge of the topics covered in this unit w.r.to managerial prospects and practical implementation through various examples and case analysis.

Performance Objectives:

- ➤ Knowing the basics of various studies related to Organization and Organizational Effectiveness
- In-depth knowledge about Hawthorn study, Lippit and White, Coch and French
- ➤ Learning and practicing how to implement the topics learnt through Case analysis from Indian perspective

Materials Needed:

- Projector and proper projection system
- ➤ Board for highlighting points of references

Teaching Strategies:

- ➤ Introduction to the topic and various studies related to Organization and Organizational Effectiveness
- ➤ Hawthorn study, Lippit and White, Coch and French
- > Case analysis rom Indian perspective and discussion

Assessment:

- > Assignment
- Class test
- > Presentation
- ➤ Group Discussion

Lesson Plan: Basic Concepts and Issues In Economic Theory (Unit 1)

Name of Teacher: Mr. Subhajit Paul Course Title: Managerial Economics

Lesson Title: Basic Concepts and Issues In Economic Theory (Unit 1)

Specific Objective:

➤ Gaining in-depth knowledge of the topics covered in this unit w.r.to managerial prospects and practical implementation through various examples and case analysis.

Performance Objectives:

- ➤ Knowing the basics of Managerial Economics & central problems of an economy
- ➤ Gaining in-depth knowledge of elasticity of demand price, income and cross elasticities
- ➤ Understanding the concept of supply equilibrium

Materials Needed:

- Projector and proper projection system
- > Board for highlighting points of references

Teaching Strategies:

- Introduction to Managerial Economics & central problems of an economy
- ➤ Elasticity of demand price, income and cross elasticities.
- > Concept of supply equilibrium.
- > Case analysis and discussion

Assessment:

- > Assignment
- Class test
- Presentation
- > Group Discussion

Lesson Plan: Theory of Production and Costs (Unit 2)

Name of Teacher: Mr. Subhajit Paul Course Title: Managerial Economics

Lesson Title: Theory of Production and Costs (Unit 2)

Specific Objective:

➤ Gaining in-depth knowledge of the topics covered in this unit w.r.to managerial prospects and practical implementation through various examples and case analysis.

Performance Objectives:

- ➤ Knowing the concept of Production function, short-run and long-run production function
- > Gaining in-depth knowledge about different types of cost and shapes of different cost
- Learning how to implement the topics learnt through Case analysis

Materials Needed:

- Projector and proper projection system
- ➤ Board for highlighting points of references

Teaching Strategies:

- ➤ Introduction to the concept of Production function, short-run and long-run production function
- ➤ Different types of cost and shapes of different cost curves
- Case analysis and discussion

Assessment:

- > Assignment
- Class test
- > Presentation
- ➤ Group Discussion

Lesson Plan: Market Structure (Unit 3)

Name of Teacher: Mr. Subhajit Paul

Course Title: Managerial Economics

Lesson Title: Market Structure (Unit 3)

Specific Objective:

➤ Gaining in-depth knowledge of the topics covered in this unit w.r.to managerial prospects and practical implementation through various examples and case analysis.

Performance Objectives:

- ➤ Understanding in-depth the concept of perfect, monopoly, monopolistic and oligopolydetermination of price and output
- ➤ Understanding the concept of tax, market failure
- ➤ Gaining knowledge about New Markets: Scope and Challenges
- ➤ Learning how to implement the topics learnt through Case analysis

Materials Needed:

- Projector and proper projection system
- ➤ Board for highlighting points of references

Teaching Strategies:

- ➤ Introduction to the concept of perfect, monopoly, monopolistic and oligopolydetermination of price and output
- ➤ Introduction to the concept of tax, market failure
- ➤ New Markets: Scope and Challenges
- > Case analysis and discussion

Assessment:

- > Assignment
- Class test
- Presentation
- ➤ Group Discussion

Lesson Plan: Unit 1

Name of Teacher: Mr. Subhajit Paul

Course Title: Business Organizations (as per new syllabus of NEP 2020)

Lesson Title: Unit 1
Specific Objective:

> Gaining in-depth knowledge of the topics covered in this unit w.r.to managerial prospects and practical implementation through various examples and case analysis.

Performance Objectives:

- ➤ Knowledge and concepts of business essentials & scope of business
- ➤ Gaining in-depth classification of business activities
- ➤ Gaining in-depth knowledge (meaning, definition, characteristics and objectives) of business organizations.
- ➤ Understanding the evolution of business organizations
- ➤ Gaining knowledge about modern business, business & profession
- Learning how to implement the topics learnt through Case analysis

Materials Needed:

- Projector and proper projection system
- ➤ Board for highlighting points of references

Teaching Strategies:

- ➤ Introduction to the concepts of business essentials & scope of business
- Classification of business activities
- ➤ Knowledge (meaning, definition, characteristics and objectives) of business organizations
- > Evolution of business organizations
- Modern business, business & profession
- > Case analysis and discussion

Assessment:

- > Assignment
- Class test
- > Presentation
- ➤ Group Discussion

Lesson Plan: Unit 2

Name of Teacher: Mr. Subhajit Paul

Course Title: Business Organizations (as per new syllabus of NEP 2020)

Lesson Title: Unit 2
Specific Objective:

> Gaining in-depth knowledge of the topics covered in this unit w.r.to managerial prospects and practical implementation through various examples and case analysis.

Performance Objectives:

- ➤ Knowledge and concepts of business unit & establishing a new business unit
- ➤ Gaining knowledge about promotion, features of business
- > Gaining in-depth knowledge about plant location, plant layouts and size of business unit.
- ➤ Learning how to implement the topics learnt through Case analysis

Materials Needed:

- > Projector and proper projection system
- ➤ Board for highlighting points of references

Teaching Strategies:

- Introduction to the concepts of business unit & establishing a new business unit
- ➤ Knowledge of promotion, features of business
- > Plant location, plant layouts and size of business unit
- Case analysis and discussion

Assessment:

- > Assignment
- Class test
- Presentation
- ➤ Group Discussion

Lesson Plan: Unit 3

Name of Teacher: Mr. Subhajit Paul

Course Title: Business Organizations (as per new syllabus of NEP 2020)

Lesson Title: Unit 3 **Specific Objective:**

> Gaining in-depth knowledge of the topics covered in this unit w.r.to managerial prospects and practical implementation through various examples and case analysis.

Performance Objectives:

- ➤ Knowledge and concepts of organization process, its importance and principles.
- > Gaining knowledge about various aspects of organization, organization structure
- ➤ Understanding the concepts of departmentation, line and staff relationships, span of control
- ➤ Understanding the concepts of delegation of authority, decentralization
- Learning how to implement the topics learnt through Case analysis

Materials Needed:

- Projector and proper projection system
- ➤ Board for highlighting points of references

Teaching Strategies:

- Introduction to the concepts of organization process, its importance and principles
- ➤ Knowledge of various aspects of organization, organization structure
- Concepts of departmentation, line and staff relationships, span of control, delegation of authority, decentralization
- Case analysis and discussion

Assessment:

- > Assignment
- Class test
- > Presentation
- > Group Discussion

Lesson Plan: Unit 4

Name of Teacher: Mr. Subhajit Paul

Course Title: Business Organizations (as per new syllabus of NEP 2020)

Lesson Title: Unit 4
Specific Objective:

➤ Gaining in-depth knowledge of the topics covered in this unit w.r.to managerial prospects and practical implementation through various examples and case analysis.

Performance Objectives:

- ➤ Knowledge about business combination, its meaning, causes and objectives
- ➤ Gaining in-depth knowledge about types and forms of mergers, takeovers and acquisitions
- ➤ Understanding the basic concepts of business finance
- Acquiring information about the financial need of business methods & sources of finance
- Understanding the concepts of security market, money market, study of stock exchange and SEBI
- ➤ Learning how to implement the topics learnt through Case analysis

Materials Needed:

- Projector and proper projection system
- ➤ Board for highlighting points of references

Teaching Strategies:

- Introduction to business combination, its meaning, causes and objectives
- > Types and forms of mergers, takeovers and acquisitions
- Basic concepts of business finance
- Financial need of business methods & sources of finance
- > Concepts of security market, money market, study of stock exchange and SEBI
- > Case analysis and discussion

Assessment:

- > Assignment
- Class test
- > Presentation
- ➤ Group Discussion

HOLY CROSS COLLEGE, AGARTALA

DEPARTMENT OD BOTANY

		Lesson Plan (Academic Session 2022-23, Even Semester)
Name of the Faculty	Dr. Dipanwita Chaudhuri Sil	
Department	Botany	
Semester		$2^{ m nd}$
Course		Botany (General) Theory
Paper		I
	Topic	Learning objectives
Unit I	Bryophyte	General account: Origin of Bryophytes, Amphibian nature, Life history: Gametophyte structure & reproduction, Development of sporophyte, Spore dispersal of <i>Marchantia</i> , <i>Anthoceros</i> , <i>Funaria</i> . Evolution of sporophyte - Progressive theory
Paper	2B (Practical).	
	Topic	Learning objectives
		Experiments related to theory paper are taken up
Semester	2 nd	
Course	Botany (Major) Theory	
Paper	T T	
	Topic	Learning objectives
Unit I	Bryophyte	General account: Origin of Bryophytes, Amphibian nature, Life history: Gametophyte structure & reproduction, Development of sporophyte, Spore dispersal of <i>Marchantia</i> , <i>Anthoceros</i> , <i>Funaria</i> . Evolution of sporophyte - Progressive theory
Paper	2B (Practical)	
	Topic	Learning objectives
	Experiments related to theory paper are taken up	
Semester	4 th	
Course	Botany (General)	

(Theory)		
Topic	Learning objectives	
Morphology	Morphology. Inflorescence- types with examples, flower types, floral parts- calyx, corolla (Forms and aestivation), stamens (cohesion and adhesion), carpel (Apocarpous and Syncarpous). Placentation types, fertilization process;	
	4B (Practical).	
Topic	Learning objectives	
	Experiments related to theory paper are taken up	
	Botany (Major)	
	4A (Theory)	
Topic	Learning objectives	
Morphology an Embryology,	Morphology- Inflorescence- types with examples, flower types, floral parts- calyx, corolla (Forms and aestivation), stamens (cohesion and adhesion), carpel (Apocarpous and Syncarpous), Placentation types, fertilization process; Fruits- types.	
	4B (Practical)	
	Experiments related to theory paper are taken up.	
	$\mathbf{6^{th}}$	
	Botany (Major)	
	6A (Theory)	
Topic	Learning objectives	
Biochemistry	Structure and properties of water, co-valent and non-covalent bonds, hydrogen bonds, Vander Waal's forces, pH, buffer and isoelectric points; Carbohydrate: Classification, structure and properties; Lipids: Classification and function: Protein: Classification and structure (Primary, Secondary, Tertiary and Quaternary structure); Amino acids: Structure, charge and polarity; essential amino-acids; Enzyme: Classification and function, Isozymes, Allosteric enzymes and Coenzymes; Glycolysis, conversion of pyruvic acid to Acetyl Co-A, TCA cycle; Membrane chemistry, transport and mechanism of ion uptake; Signal transduction pathway and second messenger concept-G protein.	
	6B (Practical)	
	Experiments related to theory paper are taken up.	
	Topic Topic Morphology an Embryology, Topic	

	Lesson Plan (Academic Session 2022-23, Even Semester)		
Name	e of the Faculty	Dr. Debasree Lodh	

Department	Botany	
Semester	2 nd	
Course	Botany (Major) Theory	
Paper		Ĭ
	Topic	Learning objectives
Unit I	Algae	General account: Thallus organization, Ultra-structure of plastid & flagella, Origin & evolution of sex. Outline classification (Lee-1999) up to phylum with characters. Chlorophyceae-Salient features, Life history: Chlamydomonas, Oedogonium. Charophyceae – Salient features, Life history: Chara. Xanthophyceae – Salient features, Life history – Voucheria. Bacillariophyceae (Diatom): 6.1 Cell structure, 6.2 Auxospore formation in Centrales and Pennales. Phaeophyceae – Salient features, Life history – Ectocarpus. Rhodophyceae – Salient features, Life history – Polysiphonia. Economic importance of algae.
		2B (Practical)
Paper		
Unit: I	Topic	Learning objectives
		Experiments related to theory paper are taken up.
Course	Botany (General) Theory	
Paper	I	
	Topic	Learning objectives
Unit I	Algae	General account: Thallus organization, Economic importance of algae. Diatom: Cell structure, Auxospore formation in <i>Centrales</i> and <i>Pennales</i> . Life history: <i>Oedogonium, Chara, Ectocarpus</i> and <i>Polysiphonia</i> .
Paper	2B (Practical)	
Unit: I	Topic	Learning objectives
		Experiments related to theory paper are taken up.
Semester	4th	
Course	Botany (Major)	
Paper	4A (Theory)	

	Topic	Learning objectives
Unit: II	Anatomy	Anatomy-Cell wall (Gross structure and chemical composition), Meristematic and Permanent tissue (structure, distribution and function); Vascular bundles types, stele-types and evolution, Normal secondary growth; Anomalous secondary growth (Stems of <i>Boerhaavia</i> , <i>Chenopodium</i> , <i>Mirabilis</i> , <i>Bignonia</i> , <i>Nyctanthes</i> , Root of <i>Tinospora</i>);
Paper		4B (Practical)
SI	Topic	Learning objectives
		Experiments related to theory paper are taken up.
Course		Botany (General)
Paper		4A (Theory)
	Topic	Learning objectives
Unit: II	Anatomy	Anatomy-Cell wall (Gross structure and chemical composition), Meristematic and Permanent tissue (structure, distribution and function), Vascular bundles- types, stele- types and evolution Normal secondary growth;
Paper		4B (Practical)
Sl	Topic	Learning objectives
		Experiments related to theory paper are taken up.
Semester		6 th
Course		Botany (Major)
Paper		6A (Theory)
	Topic	Learning objectives
Unit – I	Plant physiology:	Water potential and its components; Water absorption by roots (apoplastic and symplastic pathways); Photosynthesis: Components of photosynthesis, Types of chlorophyll and carotenoids and their structures and functions; Red drop effect and Enhancement effect, Antenna complex, photochemical reactions, Mechanism of electron transport in PS-I and PS-II, Calvin cycle; HSK pathway; C ₃ and C ₄ plants and photosynthetic efficiency, photorespiration, Crassulacean acid metabolism (CAM); Stomatal physiology; role of CO ₂ ions, ABA and light, transpiration and anti-transpirant. Respiration: Oxidative Phosphorylation, Mitochondrial ETS and uncouplers, PP pathway; N-metabolism: Assimilation of Nitrogen, Biological Nitrogen fixation: symbiotic fixation; 'nod' genes and 'nif' genes, role of nitrogenase in N ₂ fixation; Photoperiodism: Photoperiodic responses and classification of plants, Circadian Clock Photomorphogenesis; Phytochromes as photoreceptor in Photoperiodism, Vernalization, Florigen and transition to flowering; Plant growth regulators, physiological role and modes of action (IAA, Gibberellins and Cytokinins), Brassinosteriods, polyamines.

Paper	6B (Practical)
Experiments related to theory paper are taken up.	

Lesson Plan (Academic Session 2022-23, Even Semester)			
Name of the Faculty		Dr. Somnath Kar	
Department	Botany		
Semester		$2^{ m nd}$	
Course		Botany (Major) Theory	
Paper		I	
	Topic	Learning objectives	
Unit II	Gymnosperm	Progymnosperm – Diagnostic characters, Vegetative & reproductive structures of <i>Archeopteris</i> . Life histories – Distribution in India, vegetative and reproductive structure, Development of gametophytes and embryogeny of <i>Cycas</i> , <i>Pinus Gnetum</i> .	
Unit II	Palaeobotany	Plant fossil – Types of fossils, Different modes of preservation (Schopf – 1975), Importance of fossil study. Geological time scale with dominant plant groups through ages.	
Course		Botany (General) Theory	
Paper		Ι	
Unit	Topic	Learning objectives	
Unit II	Gymnosperm	Progymnosperm – A brief concept. Life histories – Distribution in India, vegetative and reproductive structure, Development of gametophytes and embryogeny of 4.1. <i>Cycas</i> , 4.2. <i>Pinus</i> 4.3 <i>Gnetum</i> .	
Unit II	Palaeobotany	Plant fossil – Types of fossils, Different modes of preservation (Schopf – 1975), Importance of fossil study. Geological time scale with dominant plant groups through ages.	
Semester		4 th	
Course	Botany (Major)		
Paper	4A (Theory)		
	Topic	Learning objectives	
Unit I	Taxonomy	Taxonomy - Nomenclature and rules of ICBN, Magnoliaceae, Poaceae, Orchidaceae, Mimosaceae, Caesalpiniaceae, Fabaceae, Malvaceae, Brassicaceae, Solanaceae, Apocynaceae, Lamiaceae, Rubiaceae and Asteraceae; Embryology- Micro and mega sporogenesis (Monosporic, bisporic and tetrasporic) Development of embryo, development of endosperm.	

Paper	4B (Practical)	
Experiments related to theory paper are taken up.		
Course	Botany (GENERAL)	
Paper		4A (Theory)
	Topic	Learning objectives
Unit I	Taxonomy	Taxonomy- Magnoliaceae, Poaceae, Orchidaceae, Mimosaceae, Caesalpiniaceae, Fabaceae, Malvaceae. Brassicaceae, Solanaceae, Apocynaceae, Lamiaceae, Rubiaceae and Asteraceae.
Paper	4B (Practical)	
Experiments related to theory paper are taken up.		
Semester	$6^{ m th}$	
Course	Botany (Major)	
Paper	6A (Theory)	
	Topic	Learning objectives
Unit – IV	Plant Biotechnology	Totipotency and concept of plant tissue culture; Function and organization of a typical plant tissue culture laboratory; Techniques of plant tissue culture: cell suspension culture technique, protoplast culture technique, Meristem tip culture technique; Modes of <i>in vitro</i> regeneration and applications; <i>In vitro</i> exudation and remedial Measures; Callus culture and applications; Haploid and embryo culture; Prokaryotic vector system and marker genes; Transformation: <i>Agrobacterium</i> mediated gene transfer, Particle Bombardment method.
Paper	6B (Practical)	
Experiments related to theory paper are taken up.		

Lesson Plan (Academic Session 2022-23, Even Semester)			
Name of the Faculty		Dr. Sudipta Sinha	
Department		Botany	
Semester	2 nd		
Course	Botany (Major) Theory		
Paper	Ĭ		
	Topic	Topic Learning objectives	
	Life history: Sporophyte structure, reproduction and structure of gametophyte of <i>Lycopodium</i> , <i>Selaginella</i> ,		
Unit II	Pteridophyta	Equisetum, Pteris	
		Telome concept & its significance.	
Course	Botany (General) Theory		

Paper		I	
Unit	Topic	Learning objectives	
Unit II	Pteridophyta	Life history: Sporophyte structure, reproduction and structure of gametophyte of <i>Lycopodium, Selaginella, Equisetum, Pteris</i> Telome concept & its significance.	
Semester		4 th	
Course		Botany (Major)	
Paper		4A (Theory)	
	Topic	Learning objectives	
Unit: II	Ecology	Ecology. Habitat and Niche (preliminary idea), Ecological succession- Hydrosere and Xerosere, Endemism, Ecological adaptation - Hydrophytes and xerophytes, Red Data Book; Ecological adaptation of Halophytes;	
Unit: II	Phytogeography	Phytogeography- Phytogeographical regions of India (D. Chattaerjee-1960); Vegetation of Western and Eastern Himalaya, Sundarban and Tripura.	
Paper		4B (Practical)	
	-	Experiments related to theory paper are taken up.	
Course	Botany (GENERAL)		
Paper	4A (Theory)		
	Topic	Learning objectives	
17 11	Earland		
Unit: II	Ecology	Ecology- Habitat and Niche (preliminary idea), Ecological succession- Hydrosere and Xerosere, Endemism, Red Data Book:	
Unit: II	Phytogeography	Phytogeography-Phytogeographical regions of India (D. Chattaerjee-1960): Vegetation of Western and Eastern Himalaya and Tripura.	
Paper		4B (Practical)	
		Experiments related to theory paper are taken up.	
Semester	6 th		
Course	Botany (Major)		
Paper		6A (Theory)	
	Topic	Learning objectives	

Unit – III	Pharmacognosy:	Importance of pharmacognosy in modern medicine; Drugs: crude and commercial drugs; Method of commercial drug production, drug adulteration; Classification and evaluation of drugs: organoleptic, microscopic, chemical and physical evaluation; Secondary metabolites and secondary metabolic biosynthetic pathways; Major types of secondary metabolites with source plant: Flavonoids, steroids, terpenoids, resins, phenolics and alkalids; Organoleptic study of whole plant of <i>Andrographis paniculata</i> , Bark of <i>Alstonia</i> sp., Rhizome of Ginger, Tuber of <i>Dioscoria</i> sp., Leaves of <i>Adhatoda</i> sp.
Paper	6B (Practical)	
Experiments related to theory paper are taken up.		

Resources/Materials	Whiteboard, Marker, Projector, Reference books & previous year question papers		
Used			
Basis of Class taken	Detailed discussion on the topics and citing examples related to different topics with an aim to develop fair concept		
	among the students.		
Assessment	Class Test/Assignment/Internal exams		
Feedback to students	Performance based discussion/ necessary steps taken/ reviewing weak points & nurturing their concept.		
Revision / Remedial	Revision will be done after completion of syllabus and remedial classes will be taken for the slow learners.		
Classes			

HEAD

Department of Botany,
HOLY CROSS COLLEGE, AGARTALA

HOLY CROSS COLLEGE, AGARTALA DEPARTMENT OD BOTANY

		Lesson Plan (Academic Session 2021-22, Even Semester)		
Name of the Faculty	Dr. Dipanwita Chaudhuri Sil			
Department	Botany			
Semester		2.nd		
Course		Botany (General) Theory		
Paper	I			
	Topic	Learning objectives		
Unit I	Bryophyte	General account: Origin of Bryophytes, Amphibian nature, Life history: Gametophyte structure & reproduction, Development of sporophyte, Spore dispersal of <i>Marchantia</i> , <i>Anthoceros</i> , <i>Funaria</i> . Evolution of sporophyte - Progressive theory		
Paper	2B (Practical).			
	Topic	Learning objectives		
		Experiments related to theory paper are taken up		
Semester		2 nd		
Course		Botany (Major) Theory		
Paper		I		
	Topic	Learning objectives		
Unit I	Bryophyte	General account: Origin of Bryophytes, Amphibian nature, Life history: Gametophyte structure & reproduction, Development of sporophyte, Spore dispersal of <i>Marchantia</i> , <i>Anthoceros</i> , <i>Funaria</i> . Evolution of sporophyte - Progressive theory		
Paper		2B (Practical)		
	Topic	Learning objectives		
		Experiments related to theory paper are taken up		
Semester	4 th			
Course	Botany (General)			
Paper		(Theory)		
	Topic	Learning objectives		

Unit: I	Morphology	Morphology. Inflorescence- types with examples, flower types, floral parts- calyx, corolla (Forms and	
		aestivation), stamens (cohesion and adhesion), carpel (Apocarpous and Syncarpous). Placentation types, fertilization process;	
Paper		4B (Practical).	
Unit: I	Topic	Learning objectives	
		Experiments related to theory paper are taken up	
Course		Botany (Major)	
Paper		4A (Theory)	
.	Topic	Learning objectives	
	Morphology and	Morphology- Inflorescence- types with examples, flower types, floral parts- calyx, corolla (Forms and	
Unit I	Embryology,	aestivation), stamens (cohesion and adhesion), carpel (Apocarpous and Syncarpous), Placentation types, fertilization process; Fruits- types.	
Paper	4B (Practical)		
		Experiments related to theory paper are taken up.	
Semester		6 th	
Course		Botany (Major)	
Paper		6A (Theory)	
	Topic	Learning objectives	
	Biochemistry	Structure and properties of water, co-valent and non-covalent bonds, hydrogen bonds, Vander Waal's forces,	
		pH, buffer and isoelectric points; Carbohydrate: Classification, structure and properties; Lipids:	
		Classification and function: Protein: Classification and structure (Primary, Secondary, Tertiary and	
Unit – I		Quaternary structure); Amino acids: Structure, charge and polarity; essential amino-acids; Enzyme:	
		Classification and function, Isozymes, Allosteric enzymes and Coenzymes; Glycolysis, conversion of	
		pyruvic acid to Acetyl Co-A, TCA cycle; Membrane chemistry, transport and mechanism of ion uptake;	
		Signal transduction pathway and second messenger concept-G protein.	
Paper		6B (Practical)	
-		Experiments related to theory paper are taken up.	

		Lesson Plan (Academic Session 2021-22, Even Semester)
Name of the Faculty	Dr. Debasree Lodh	
Department	Botany	
Semester	?nd	
Course	Botany (Major) Theory	
Paper		I
	Topic	Learning objectives
Unit I	Algae	General account: Thallus organization, Ultra-structure of plastid & flagella, Origin & evolution of sex. Outline classification (Lee-1999) up to phylum with characters. Chlorophyceae-Salient features, Life history: Chlamydomonas, Oedogonium. Charophyceae – Salient features, Life history: Chara. Xanthophyceae – Salient features, Life history – Voucheria. Bacillariophyceae (Diatom): 6.1 Cell structure, 6.2 Auxospore formation in Centrales and Pennales. Phaeophyceae – Salient features, Life history – Ectocarpus. Rhodophyceae – Salient features, Life history – Polysiphonia. Economic importance of algae.
		2B (Practical)
Paper		
Unit: I	Topic	Learning objectives
		Experiments related to theory paper are taken up.
Course	Botany (General) Theory	
Paper	I	
	Topic	Learning objectives
Unit I	Algae	General account: Thallus organization, Economic importance of algae. Diatom: Cell structure, Auxospore formation in <i>Centrales</i> and <i>Pennales</i> . Life history: <i>Oedogonium, Chara, Ectocarpus</i> and <i>Polysiphonia</i> .

Paper		2B (Practical)	
Unit: I	Topic	Learning objectives	
		Experiments related to theory paper are taken up.	
Semester		4th	
Course		Botany (Major)	
Paper		4A (Theory)	
	Topic	Learning objectives	
Unit: II	Anatomy	Anatomy-Cell wall (Gross structure and chemical composition), Meristematic and Permanent tissue (structure, distribution and function); Vascular bundles types, stele- types and evolution, Normal secondary growth; Anomalous secondary growth (Stems of <i>Boerhaavia</i> , <i>Chenopodium</i> , <i>Mirabilis</i> , <i>Bignonia</i> , <i>Nyctanthes</i> , Root of <i>Tinospora</i>);	
Paper		4B (Practical)	
Sl	Topic	Learning objectives	
		Experiments related to theory paper are taken up.	
Course		Botany (General)	
Paper		4A (Theory)	
	Topic	Learning objectives	
Unit: II	Anatomy	Anatomy-Cell wall (Gross structure and chemical composition), Meristematic and Permanent tissue (structure, distribution and function), Vascular bundles- types, stele- types and evolution Normal secondary growth;	
Paper		4B (Practical)	
Sl	Topic	Learning objectives	
		Experiments related to theory paper are taken up.	
Semester		6 th	
Course	Botany (Major)		
Paper		6A (Theory)	
	Topic	Learning objectives	
	Plant physiology:	Water potential and its components; Water absorption by roots (apoplastic and symplastic pathways);	
Unit – I		Photosynthesis: Components of photosynthesis, Types of chlorophyll and carotenoids and their structures and functions; Red drop effect and Enhancement effect, Antenna complex, photochemical reactions,	

	Mechanism of electron transport in PS-I and PS-II, Calvin cycle; HSK pathway; C ₃ and C ₄ plants and photosynthetic efficiency, photorespiration, Crassulacean acid metabolism (CAM); Stomatal physiology; role of CO ₂ ions, ABA and light, transpiration and anti-transpirant. Respiration: Oxidative Phosphorylation, Mitochondrial ETS and uncouplers, PP pathway; N-metabolism: Assimilation of Nitrogen, Biological Nitrogen fixation: symbiotic fixation; 'nod' genes and 'nif' genes, role of nitrogenase in N ₂ fixation; Photoperiodism: Photoperiodic responses and classification of plants, Circadian Clock Photomorphogenesis; Phytochromes as photoreceptor in Photoperiodism, Vernalization, Florigen and transition to flowering; Plant growth regulators, physiological role and modes of action (IAA, Gibberellins and Cytokinins), Brassinosteriods, polyamines.	
	and Cytokinins), Brassinosteriods, polyamines.	
Paper	6B (Practical)	
	Experiments related to theory paper are taken up.	

		Lesson Plan (Academic Session 2021-22, Even Semester)	
Name of the Faculty		Dr. Somnath Kar	
Department	Botany		
Semester		2 nd	
Course		Botany (Major) Theory	
Paper		I	
	Topic	Learning objectives	
		Progymnosperm – Diagnostic characters, Vegetative & reproductive structures of <i>Archeopteris</i> .	
Unit II	Gymnosperm	Life histories – Distribution in India, vegetative and reproductive structure, Development of gametophytes and embryogeny of <i>Cycas</i> , <i>Pinus Gnetum</i> .	
	D. L L 4	Plant fossil – Types of fossils, Different modes of preservation (Schopf – 1975),	
Unit II	Palaeobotany	Importance of fossil study.	
		Geological time scale with dominant plant groups through ages.	
Course		Botany (General) Theory	
Paper		I	
Unit	Topic	Topic Learning objectives	
	Gymnosperm	Progymnosperm – A brief concept.	
Unit II		Life histories – Distribution in India, vegetative and reproductive structure, Development of gametophytes	
		and embryogeny of 4.1. Cycas, 4.2. Pinus 4.3 Gnetum.	
		Plant fossil – Types of fossils, Different modes of preservation (Schopf – 1975),	
Unit II	Palaeobotany	Importance of fossil study.	
		Geological time scale with dominant plant groups through ages.	
Semester	4 th		
Course	Botany (Major)		
Paper	4A (Theory)		
	Topic	Learning objectives	
Unit I	Taxonomy	Taxonomy - Nomenclature and rules of ICBN, Magnoliaceae, Poaceae, Orchidaceae, Mimosaceae, Caesalpiniaceae, Fabaceae, Malvaceae, Brassicaceae, Solanaceae, Apocynaceae, Lamiaceae, Rubiaceae	

	-1	and Asteraceae; Embryology- Micro and mega sporogenesis (Monosporic, bisporic and tetrasporic)
		Development of embryo, development of endosperm.
Unit: II	Ecology	Ecology. Habitat and Niche (preliminary idea), Ecological succession- Hydrosere and Xerosere,
Omt. II	Ecology	Endemism, Ecological adaptation - Hydrophytes and xerophytes, Red Data Book; Ecological adaptation of
		Halophytes;
Paper		4B (Practical)
- wpv-		Experiments related to theory paper are taken up.
Course		Botany (GENERAL)
Paper		4A (Theory)
	Topic	Learning objectives
Unit I	Taxonomy	Taxonomy- Magnoliaceae, Poaceae, Orchidaceae, Mimosaceae, Caesalpiniaceae, Fabaceae, Malvaceae.
Omt 1	Taxonomy	Brassicaceae, Solanaceae, Apocynaceae, Lamiaceae, Rubiaceae and Asteraceae.
Unit: II	Ecology	Ecology- Habitat and Niche (preliminary idea), Ecological succession- Hydrosere and Xerosere, Endemism,
		Red Data Book:
Paper		4B (Practical)
		Experiments related to theory paper are taken up.
Semester		6 th
Course	Botany (Major)	
Paper	6A (Theory)	
	Topic	Learning objectives
	Plant	Totipotency and concept of plant tissue culture; Function and organization of a typical plant tissue culture
	Biotechnology	laboratory; Techniques of plant tissue culture: cell suspension culture technique, protoplast culture
		technique, Meristem tip culture technique; Modes of in vitro regeneration and applications; In vitro
Unit – IV		exudation and remedial Measures; Callus culture and applications; Haploid and embryo culture;
		Prokaryotic vector system and marker genes; Transformation: Agrobacterium mediated gene transfer,
		Particle Bombardment method.
Paper		6B (Practical)
	1	Experiments related to theory paper are taken up.

		Lesson Plan (Academic Session 2021-22, Even Semester)
Name of the Faculty	Dr. Sudipta Sinha	
Department	Botany	
Semester		2 nd
Course		Botany (Major) Theory
Paper		I
	Topic	Learning objectives
Unit II	Pteridophyta	Life history: Sporophyte structure, reproduction and structure of gametophyte of <i>Lycopodium, Selaginella, Equisetum, Pteris</i> Telome concept & its significance.
Course		Botany (General) Theory
Paper		I
Unit	Topic	Learning objectives
Unit II	Pteridophyta	Life history: Sporophyte structure, reproduction and structure of gametophyte of <i>Lycopodium, Selaginella, Equisetum, Pteris</i> Telome concept & its significance.
Semester	4th	
Course		Botany (Major)
Paper	4A (Theory)	
	Topic	Learning objectives
Unit: II	Phytogeography	Phytogeography- Phytogeographical regions of India (D. Chattaerjee-1960); Vegetation of Western and Eastern Himalaya, Sundarban and Tripura.
Paper		4B (Practical)
	1	Experiments related to theory paper are taken up.
Course	Botany (GENERAL)	
Paper		4A (Theory)
	Topic	Learning objectives

Unit: II	Phytogeography	Phytogeography Phytogeography-Phytogeographical regions of India (D. Chattaerjee-1960): Vegetation of Western and	
		Eastern Himalaya and Tripura.	
Paper		4B (Practical)	
		Experiments related to theory paper are taken up.	
Semester	6 th		
Course	Botany (Major)		
Paper	6A (Theory)		
	Topic	Learning objectives	
Unit – III	Pharmacognosy:	Importance of pharmacognosy in modern medicine; Drugs: crude and commercial drugs; Method of commercial drug production, drug adulteration; Classification and evaluation of drugs: organoleptic, microscopic, chemical and physical evaluation; Secondary metabolites and secondary metabolic biosynthetic pathways; Major types of secondary metabolites with source plant: Flavonoids, steroids, terpenoids, resins, phenolics and alkalids; Organoleptic study of whole plant of <i>Andrographis paniculata</i> , Bark of <i>Alstonia</i> sp., Rhizome of Ginger, Tuber of <i>Dioscoria</i> sp., Leaves of <i>Adhatoda</i> sp.	
Paper	6B (Practical)		
		Experiments related to theory paper are taken up.	

Resources/Materials Used	Whiteboard, Marker, Projector, Reference books & previous year question papers
Basis of Class taken	Detailed discussion on the topics and citing examples related to different topics with an aim to develop fair concept among the students.
Assessment	Class Test/Assignment/Internal exams
Feedback to students	Performance based discussion/ necessary steps taken/ reviewing weak points & nurturing their concept.
Revision / Remedial	Revision will be done after completion of syllabus and remedial classes will be taken for the slow learners.
Classes	

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Department of Botany,
HOLY CROSS COLLEGE, AGARTALA

HOLY CROSS COLLEGE, AGARTALA DEPARTMENT OD BOTANY

		Lesson Plan (Academic Session 2021-22, Odd Semester)		
Name of the Faculty		Dr. Dipanwita Chaudhuri Sil		
Department		Botany		
Semester		1st		
Course		Botany (Major) Theory		
Paper		I		
Unit I:	Topic	Learning objectives		
		Origin of life, Difference between plant and animal cell. Time line of plant evolution.		
		Three domains of classification – Archaea, Bacterial Eukaryota.		
	Fundamental Botany	History of Plant classification: Natural (Bentham & Hooker), Artificial (Linnaeus) and Phylogenetic (Hutchinson) system of Classification.		
		Plant life cycle pattern & alternation of generation.		
		Darwin's theory of evolution, Macro & micro evolution		
		Species concept, Isolation & mechanism of speciation		
Course	Botany (General) Theory			
Paper		I		
Unit 1	Topic	Learning objectives		
		Origin of life, Difference between plant and animal cell.		
		Three domains of classification – Archaea, Bacterial Eukaryota.		
	Fundamental	History of Plant classification: Natural (Bentham & Hooker), Artificial (Linnaeus) and Phylogenetic (Hutchinson)		
	Botany	system of Classification.		
		Darwin's theory of evolution,		
		Species concept, Isolation & mechanism of speciation		
Semester	3 rd			
Course	Botany (Major)			
Paper	3A (Theory)			
Unit: I	Topic	Learning objectives		

	Fungi and Plant Resource Utilization	General account of Phycomycetes, Life history of <i>Mucor</i> , <i>Synctitricum</i> ; General account of Ascomyctes, Life history of <i>Pecicillium</i> , <i>Ascobolus</i> ; General account of Deuteromycetes, Life history of <i>Fusarium</i> , Cereal – Rice, Wheat; Pulses – Gram, Moong and Lens Beverages – Tea and Coffee: Fruits – Mango, Citrus and Papaya; Drug yielding – Cinchona, Rauwolfia, Digitalis and Papaver: Spices – Ginger, Cumin and Clove; Oil yielding – Mustard, Groundnut, Coconut and Linseed: Vegetables – Potato, Radish and Cabbage; Fibre yielding – Cotton and Jute; Timber yielding – Teak and Sal; Sugar yielding – Sugarcane and Sugar beet. Cultivation of Rice, Jute, Rubber and Tea.	
Paper Sl	Topic	3B (Practical) Learning objectives	
OI .	Topic	Experiments related to theory paper are taken up.	
Course		Botany (GENERAL)	
Paper		3A (Theory)	
Unit: I	Topic	Learning objectives	
	Fungi and Plant Resource Utilization	General account of Phycomycetes, Life history of <i>Mucor</i> General account of Basidiomycetes, Life history of <i>Polyporus</i> , General account of Deuteromycetes, Life history of <i>Fusarium</i> , Cereal – Rice, Wheat; Pulses – Gram, Moong and Lens; Beverages – Tea and Coffee: Fruits – Mango, Citrus and Papaya; Drug yielding – Cinchona, Rauwolfia, Digitalis and Papaver: Spices – Ginger, Cumin and Clove; Oil yielding – Mustard, Groundnut, Coconut and Linseed: Vegetables – Potato, Radish and Cabbage; Fibre yielding – Cotton and Jute; Timber yielding – Teak and Sal; Sugar yielding – Sugarcane and Sugar beet Cultivation of Rice, Jute and Tea	
Paper		3B (Practical)	
Unit: I	Topic	Learning objectives	
		Experiments related to theory paper are taken up	
Semester		5 th	
Course		Botany (Major)	
Paper		5A (Theory)	
	Topic	Learning objectives	

Unit I	Cell Biology	Chromosome morphology and Organization of Eukaryotic Chromosome (Nucleosome concept); Centromere and telomere – structure and function;
Unit II	Molecular Biology	Structure, forms salient features of Nucleic Acids (DNA and RNA); DNA replication – Semi-conservative replication in Prokaryotes with proof (Meselson and Stahl's Experiment), Mechanism of DNA replication in Prokaryotes, Transcription: Initiation, elongation and termination in Prokaryotes. Translation in Prokaryotes: Amino-acylation of RNA, initiation and elongation termination of polypeptide chain: Concept of Lac Operon (Positive and Negative control).
Paper		5B (Practical)
Unit III	Topic	Learning objectives
	<u>.</u>	Experiments related to theory paper are taken up.
Course	Botany (General)	
Paper		5A (Theory)
Unit I	Topic	Learning objectives
	Cell Biology and Molecular Biology, Cytogenetics and Plant Breeding	Cell cycle and Cell division, Structure and function of Cell Organelles (Nucleus, Mitochondria, Chloroplast, Ribosome) Chromosome morphology and Organization of Eukaryotic Chromosome (Nucleosome concept) Structure forms and salient features of Nucleic Acids (DNA and RNA); DNA replication, Mechanism of DNA replication in Prokaryotes, Lac Operon (brief idea).
	Plant Physiology and Plant Biotechnology:	Totipotency and concept of plant tissue culture; Function and organization of a typical plant tissue culture laboratory; Transformation: <i>Agrobacterium</i> mediated gene transfer.
Paper	5 B (Practical)	
Sl	Topic	Learning objectives
		Experiments related to theory paper are taken up.

	Le	esson Plan (Academic Session 2021-22, Odd Semester)
Name of the Faculty	Dr. Debasree Lodh	
Department		Botany
Semester		1st
Course		Botany (Major) Theory
Paper		Ĭ
Unit IV	Topic	Learning objectives
	Industrial Botany – II (Plant Nursery and Floriculture Industry)	Concept and types of nurseries: ornamental plant nursery, fruit plant nursery, medicinal plant nursery, vegetable plant nursery and orchid nursery (with reference to infrastructure required and commercial applications). Propagation methods: Seed propagation, natural vegetative propagation and artificial vegetative propagation (Cutting: Stem, Layering: Air layering, Grafting: Stone grafting and Approach grafting, Budding: T budding). Introduction to floriculture: Important floricultural crops, open cultivation practices, harvesting and marketing.
Course	Botany (General) Theory	
Paper		I
Unit IV	Topic	Learning objectives
	Industrial Botany – II (Plant Nursery and Floriculture Industry)	Concept and types of nurseries: ornamental plant nursery, fruit plant nursery, vegetable plant nursery (with reference to infrastructure required and commercial applications). Propagation methods: Seed propagation, natural vegetative propagation and artificial vegetative propagation (Cutting, Layering and grafting) Introduction to floriculture: Important floricultural crops, open cultivation practices, harvesting and marketing.
Semester	3rd	
Course	Botany (Major)	
Paper	3A (Theory)	
Unit: II	Topic	Learning objectives

	Microbiology and Plant	General characteristics of Plant virus and Bacteriophage,
	pathology	Growth cycle Lytic (T_4) and Lysogenic (λ virus);
	patriology	Bacteria-Cell structure
		Endospore formation
		Genetic Recombination-Conjugation, transformation and transduction
Paper		3B (Practical)
Sl	Topic	Learning objectives
~-		Experiments related to theory paper are taken up.
Course		Botany (GENERAL)
Paper		3A (Theory)
Unit: II	Topic	Learning objectives
		General characteristics of Plant virus and Bacteriophage,
	Microbiology and Plant	Growth cycle Lytic (T_4) and Lysogenic (λ virus);
	pathology	Bacteria-Cell structure
		Endospore formation
		Genetic Recombination-Conjugation, transformation and transduction
Paper		3B (Practical)
Unit: I	Topic	Learning objectives
		Experiments related to theory paper are taken up.
Semester		5 th
Course		Botany (Major)
Paper		5A (Theory)
Unit III	Topic	Learning objectives
	Cytogenetics	Mendelian inheritance; Gene interactions: Incomplete Dominance (1:2:1), Modified dihybrid ratio (12:3:1, 9:3:4, 9:7, 9:6:1, 13:3), Atavism, Pleiotropism; Crossing Over: Cytological proof of crossing over (McClintock's experiment); Molecular basis of Crossing
		Over;
		Complete and incomplete linkage. Thee point test cross, Problems on Gene Mapping; Sex linked trait and
		sex linked inheritance; Aneuploidy and Euploidy, role of polyploidy in crop improvement
		Chromosomal aberration: Types and meiotic behavior of deletion, duplication, translocation and inversion;, Molecular mapping – FISH technique; Bioinformatics: Genomics and proteomics (A brief idea).

Unit IV	Plant Breeding and Biostatistics	Methods of plant breeding: Introduction, emasculation, Hybridization and Acclimatization; Selection: Mass selection and pure selection; Male sterility: Genetic, Cytoplasmic and Cytoplasmic-genetic male sterility; Heterosis and hybrid vigour;	
Paper	5B (Practical)		
Unit III	Topic	Learning objectives	
		Experiments related to theory paper are taken up.	
Course		Botany (General)	
Paper		5A (Theory)	
Unit I	Topic	Learning objectives	
	Cell Biology and Molecular Biology, Cytogenetics and Plant Breeding	Mendelian inheritance; Gene interactions: Incomplete Dominance (1:2:1), Modified dihybrid ratio (12:3:1, 9:3:4, 9:7), Crossing Over: Cytological proof of crossing over (McClintock's experiment); Complete and incomplete linkage; Aneuploidy and Euploidy, role of polyploidy in crop improvement; Chromosomal aberration: deletion, duplication, translocation and inversion; Methods of plant breeding: Introduction, emasculation	
Paper	5 B (Practical)		
Sl	Topic	Learning objectives	
		Experiments related to theory paper are taken up.	

		Lesson Plan (Academic Session 2021-22, Odd Semester)	
Name of the Faculty	Dr. Somnath Kar		
Department	Botany		
Semester		1st	
Course		Botany (Major) Theory	
Paper		Ī	
Unit I:	Topic	Learning objectives	
	_	Pollution: Definition and categories	
		Air pollution: Types and sources of air pollutants and their effects on plants and animals.	
	E	Water pollution: Types and sources of pollutants and their effects on plants and animals.	
	Environment	Soil pollution: Sources of pollutants and their effects on living organisms.	
	al Botany	Bioremediation, noise pollution, acid rain, classical and photochemical smog, heavy metal pollution and radioactive	
		pollution.	
		ozone hole – types of ozone depleting chemicals and their interactions.	
Course		Botany (General) Theory	
Paper	I		
Unit II	Topic	Learning objectives	
		Pollution: Definition and categories	
	Environment	Air pollution: Types and sources of air pollutants	
	al Botany	Water pollution: Types and sources of pollutants and their effects on plants and animals.	
	al botany	Soil pollution: Sources of pollutants and their effects on living organisms.	
		Noise pollution	
		Heavy metal pollution and radioactive pollution	
Semester		3 rd	
Course		Botany (Major)	
Paper		3A (Theory)	
Unit: II	Topic	Learning objectives	
	Microbiology	Disease concepts, Symptoms-necrotic, hypoplastic and hyperplastic; Necrotrophs and biotrophs, mode of	
	and Plant	pathogenesis.	
	pathology	Defense mechanism with special references to phytoalexins, Plant quarantine;	
		Koch's postulates,	
		Symptoms, Casual organisms, Disease cycle and Control measures of Late blight of potato, Brown sport of rice,	
		Black stem of wheat and Stem rot of Jute	
Paper	3B (Practical)		

Sl	Topic	Learning objectives	
		Experiments related to theory paper are taken up	
Course		Botany (GENERAL)	
Paper		3A (Theory)	
Unit: II	Topic	Learning objectives	
	Microbiology and Plant pathology	Disease concepts, Symptoms-necrotic, hypoplastic and hyperplastic; Necrotrophs and biotrophs, mode of pathogenesis. Defense mechanism with special references to phytoalexins, Plant quarantine; Koch's postulates, Symptoms, Casual organisms, Disease cycle and Control measures of Late blight of potato, Brown sport of rice, Black stem of wheat and Stem rot of Jute	
Paper		3B (Practical)	
Unit: I	Topic	Learning objectives	
		Experiments related to theory paper are taken up.	
Semester		5 th	
Course		Botany (Major)	
Paper		5A (Theory)	
Unit III	Topic	Learning objectives	
		Structure and function of Cell Organelles (Nucleus, Mitochondria, Chloroplast, ER, Golgi Apparatus, Peroxisomes and Glyoxysomes, Ultra-structure of ribosome in Prokaryotes and Eukaryotes,) Plasma membrane – Structure (Fluid mosaic model) and function; Organization of cp and mt DNA and their significance;	
	Plant Breeding and Biostatistics	Collection of data (Variable and attribute, Primary and Secondary data, Population and sample); Types of charts and diagrams: Frequency distribution (Simple, Grouped and Cumulative);. Measures of Central tendency: Mean Mode and Median; Measure of dispersion: Mean deviation and Standard Deviation; Standard Error; Correlation and Coefficient of Correlation (r); Student t-test; Chi Square test for goodness of fit; Classical definition of Probability, Addition and Multiplication rules	
Paper		5B (Practical)	
Unit III	Topic	Learning objectives	
		Experiments related to theory paper are taken up.	

Course		Botany (General)	
Paper		5A (Theory)	
Unit II	Topic	Learning objectives	
	Plant	Water potential and its components; Water absorption by roots (apoplastic and symplastic pathways); Photosynthesis:	
	Physiology	photochemical reactions,	
	and Plant	Mechanism of electron transport in PS-I and PS-II, Calvin cycle; C ₃ and C ₄ plants and photosynthetic efficiency,	
	Biotechnology	photorespiration, Crassulacean acid metabolism (CAM); Transpiration and anti-transpirant.	
		Respiration: Glycolysis, Oxidative Phosphorylation, Mitochondrial ETS; N-metabolism: Assimilation of Nitrogen,	
		Biological Nitrogen fixation: role of nitrogenase in N ₂ fixation;	
		Photoperiodism: Photoperiodic responses and classification of plants, Photomorphogenesis;	
		Plant growth regulators, physiological role and modes of action (IAA, Gibberellins and Cytokinins).	
Paper		5 B (Practical)	
Sl	Topic	Learning objectives	
		Experiments related to theory paper are taken up.	

	Lesson Plan (Academic Session 2021-22, Odd Semester)		
Name of the Faculty	Dr. Sudipta Sinha		
Department	Botany		
Semester		1st	
Course		Botany (Major) Theory	
Paper		I	
Unit III	Topic	Learning objectives	
	Industrial Botany — I (Agri Industries and microbial fermentation and food)	Organic farming – Concept, need, types of organic fertilizers, advantages and limitations. Importance of seed industries, Seed production. Seed processing and marketing, major seed industries & corporation of India. Production of SCP from algae – <i>Spirulina</i> culture technique. Mushroom production and harvesting (<i>Volvoriella</i> sp. and <i>Pleurotus</i> sp.) Commercial production of Ethyl alcohol, Citric acid and Penicillin. Concept of biofuel and its need, Plants used for biofuel production.	
Course	Botany (General) Theory		
Paper	I		
Unit III	Topic	Learning objectives	
	Industrial Botany — I (Agri Industries and microbial fermentation and food)	Organic farming – Concept, need, types of organic fertilizers, advantages and limitations. Importance of seed industries, Seed production. Seed processing and marketing, major seed industries & corporation of India. Production of SCP from algae – Spirulina culture technique. Mushroom production and harvesting (Volvoriella sp.) Commercial production of Ethyl alcohol and Citric acid	
Semester	3rd		
Course	Botany (Major)		
Paper		3A (Theory)	
Unit: I	Topic	Learning objectives	

Fungi and Plant Resource Utilization An outline classification of fungi upto class characte Lichens and their significance. Fungal spore form. Sexual reproduction and degeneration of sex, General account of Basidiomycetes, Life history of Mycotoxins	(1.44) (1.44) (1.44)		
Utilization Sexual reproduction and degeneration of sex, General account of Basidiomycetes, Life history of			
General account of Basidiomycetes, Life history of			
	Polyporus and Agaricus		
111 5 5 5 5 1111 5	1 ovjporna una 118 ar vena		
Economic importance of fungi			
1 0	3B (Practical)		
1	ing objectives		
	to theory paper are taken up.		
Course Botany (GENER	RAL)		
Paper 3A (Theory)			
Unit: I Topic Lear	rning objectives		
An outline classification of fungi upto class character	ter (Hawksworth – 1995).		
Fungi and Plant Lichens and their significance. Fungal spore form.			
Resource Sexual reproduction and degeneration of sex,			
Utilization General account of Basidiomycetes, Life history of	Polyporus and Agaricus		
Mycotoxins			
Economic importance of fungi			
Paper 3B (Practical			
Unit: I Topic Lear	rning objectives		
Experiments related	to theory paper are taken up.		
Semester 5th			
Course Botany (Majo	or)		
Paper 5A (Theory)			
Unit III Topic Learning objectives			
Cell Biology Cell cycle and Cell division, equational and reductional Theories of anaphasic movement; Apoptosis.	al division with respect to 'C' value, Cell cycle regulation,		
Molecular Genetic code: Properties, deciphering of genetic code;			
Biology Gene Mutation: Transition, Transversion and Frame sl	hift mutation, Effects of chemical mutagens (Base analogues		
and Nitrous acid) Physical agents (UV rays);			
DNA damage and repair,			
Restriction enzymes: types and function; PCR and its a	application (A brief idea)		
	I)		

Unit III	Topic	Learning objectives	
		Experiments related to theory paper are taken up.	
Course		Botany (General)	
Paper		5A (Theory)	
	Topic	Learning objectives	
Unit I	Molecular Biology	Translation in Prokaryotes: Amino-acylation of RNA,	
		initiation, elongation and termination of polypeptide chain: Gene Mutation: Transition, Transversion and Frame shift	
		mutation	
Unit I	Plant Breeding	Hybridization and Acclimatization; Selection: Mass selection and pure selection; Male sterility:	
		Genetic, Cytoplasmic and Cytoplasmic-genetic male sterility;	
		Heterosis and hybrid vigour;	
Unit II	Plant Physiology	Transformation: Agrobacterium mediated gene transfer.	
	and Plant		
	Biotechnology		
Paper		5 B (Practical)	
Sl	Topic	Learning objectives	
		Experiments related to theory paper are taken up.	

Resources/Materials	Whiteboard, Marker, Projector, Reference books & previous year question papers		
Used			
Basis of Class taken	Detailed discussion on the topics and citing examples related to different topics with an aim to develop fair concept		
	among the students.		
Assessment	Class Test/Assignment/Internal exams		
Feedback to students	Performance based discussion/ necessary steps taken/ reviewing weak points & nurturing their concept.		
Revision / Remedial	Revision will be done after completion of syllabus and remedial classes will be taken for the slow learners.		
Classes			

HEAD
Department of Botany,
HOLY CROSS COLLEGE, AGARTALA

Department of Human Physiology Holy Cross College, Agartala

LESSON PLAN

for 1st, 3rd, and 5th Semester Theory Classes

Academic Year: September 2022-March 2023

Dr. Sandeep Roy Sarkar

Assistant Professor Department of Human Physiology

Semester	1st Semester (Honours) -Theory	
Paper	01 (H1)	
Unit III:	Sub Topic	Learning objectives
	Blood, Bone marrow	Students will be able to learn about: 1. Composition & function of blood. 2. Function of different blood cells. 3. Plasma proteins- types & functions. 4. Bone marrow structure & function.
Blood, other	Hematopoie sis	Students will be able to learn about: 1. Hematopoietic stem cells. 2. Erythropoiesis-process, factors influencing. 3. Leucopoiesis. 4. Thrombopoiesis.
body fluids & clinical hematology	Blood volume. Hemoglobin	Students will be able to learn about: 1. Blood volume & factors affecting. 2. Hemoglobin- structure & synthesis. 3. Hemoglobin- Functions & degradation.
	Blood coagulation. Lymph & tissue fluid.	Students will be able to learn about: 1. Blood coagulation- factors & mechanism. 2. Tissue fluid & lymph- composition, formation and function. 3. Oedema.
	Clinical hematology	Students will be able to learn about: 1. TC, DC, PCV, MCHC, etc. 2. Arneth count, ESR.
Resources/Materials Used		Whiteboard, Marker, models, Reference books.
Basis of Class taken		Concept discussion, MCQ related to the topic.
Assessment		Class Test/Assignment
Feedback to students		Performance based discussion/ necessary steps taken/ reviewing weak points & nurturing their concept.
Revision / Remedial Classes		Revision & remedial classes for slow learners.

Semester	1st Semester	(General) -Theory
Paper	01 (G1)	
Unit III:	Sub Topic	Learning objectives
	Blood, Bone marrow	Students will be able to learn about: 1. Composition & function of blood. 2. Function of different blood cells. 3. Plasma proteins- types & functions. 4. Bone marrow structure & function.
Blood, other	Hematopoie sis	Students will be able to learn about: 1. Hematopoietic stem cells. 2. Erythropoiesis-process, factors influencing. 3. Leucopoiesis. 4. Thrombopoiesis.
body fluids & clinical hematology	Blood volume. Hemoglobin	Students will be able to learn about: 1. Blood volume & factors affecting. 2. Hemoglobin- structure & synthesis. 3. Hemoglobin- Functions & degradation.
234	Blood coagulation. Lymph & tissue fluid.	Students will be able to learn about: 1. Blood coagulation- factors & mechanism. 2. Tissue fluid & lymph- composition, formation and function. 3. Oedema.
	Clinical hematology	Students will be able to learn about: 1. TC, DC, PCV, MCHC, etc. 2. Arneth count, ESR.
Resources/Ma	aterials Used	Whiteboard, Marker, models, Reference books.
Basis of Class taken		Concept discussion, MCQ related to the topic.
Assessment		Class Test/Assignment
Feedback to students		Performance based discussion/ necessary steps taken/ reviewing weak points & nurturing their concept.
Revision / Remedial Classes		Revision & remedial classes for slow learners.

Semester	3 rd Semester	(Honours) -Theory
Paper	03 (H3A)	
Unit VII:	Sub Topic	Learning objectives
Metabolic biochemistr y & molecular respiration	Inborn errors of metabolism. Molecular respiration.	Students will be able to learn about: 1. Glycogen storage disease. 2. PKU, Albinism. Students will be able to learn about: 1. Gluconeogenesis 2. PPP, Uronic acid pathway.
Unit VIII:	Sub Topic	Learning objectives
	Vitamins Co- enzymatic	Students will be able to learn about: 1. Chemical nature of vitamins. 2. Types- fat & water soluble vitamins. 3. Structure of vitamins. Students will be able to learn about: 1. Co-enzymatic role of vitamins.
Nutritional biochemistr y	role of vitamins Vitamin deficiency symptoms and disorders Bulk and trace	2. Role of vitamins as co-factors. Students will be able to learn about: 1. Deficiency symptoms of fat & water soluble vitamins. 2. Disorders of fat & water soluble vitamins. 3. Hypervitaminosis. Students will be able to learn about: 1. Types of Bulk and trace elements.
elements		2. Physiological role of Bulk and trace elements.
Resources/Materials Used Basis of Class taken		Whiteboard, Marker, models, Reference books.
Assessment		Concept discussion, MCQ related to the topic. Class Test/Assignment
Feedback to students		Performance based discussion/ necessary steps taken/ reviewing weak points & nurturing their concept.
Revision / Remedial Classes		Revision & remedial classes for slow learners.

Semester	3rd Semester (General) -Theory		
Paper	03 (G3A)		
Unit VIII:	Sub Topic	Learning objectives	
Renal physiology	Anatomical structure of kidney, GFR. Mechanism of urine formation. Micturition and reflexes. Renal circulation. Non-excretory functions of kidney. Chronic renal failure.	Students will be able to learn about: 1. Macroscopic anatomy of kidney. 2. Microscopic anatomy of nephrons. 3. Functions of different parts of kidney & nephrons. 4. Glomerular filtration rate & factors affecting it. Students will be able to learn about: 1. Glomerular filtration 2. Tubular reabsorption & secretion. 3. Substances which are reabsorbed and secreted. Students will be able to learn about: 1. Barington's micturition reflexes. 2. Process of micturition. Students will be able to learn about: 1. Pathway of renal circulation. 2. Peculiarities and functions. Students will be able to learn about: 1. Role of kidney in BP regulation. 2. Role of kidney in osmoregulation and erythropoiesis. 3. Role of kidney in acid-base balance. Students will be able to learn about: 1. Reason and types of renal failure. 2. Chronic renal failure.	
Resources/Materials Used Basis of Class taken		Whiteboard, Marker, models, Reference books. Concept discussion, MCQ related to the topic.	
Assessment		Class Test/Assignment	
Feedback to students		Performance based discussion/ necessary steps taken/ reviewing weak points & nurturing their concept.	
Revision / Remedial Classes		Revision & remedial classes for slow learners.	

Semester	5th Semester (Honours) -Theory	
Paper	05 (H5)	
Unit XII:	Sub Topic	Learning objectives
	Kidney & renal circulation.	Students will be able to learn about: 1. Macroscopic anatomy of kidney. 2. Microscopic anatomy of nephrons. 3. Functions of different parts of kidney & nephrons. 4. Renal circulation-course & pecularities.
	GFR & urine formation.	Students will be able to learn about: 1. Glomerular filtration rate. 2. Tubular reabsorption & secretion. 3. GFR- factors affecting. 4. Juxta – glomerular apparatus. 5. Hypo and hypertonic urine formation.
Excretory	Non- excretory functions.	Students will be able to learn about: 1. Role of kidney in BP regulation. 2. Role of kidney in osmoregulation and erythropoiesis. 3. Role of kidney in acid-base balance. 4. Renal function tests.
system, skin & thermo regulation	Composition of urine, urinary bladder.	Students will be able to learn about: 1. Normal & abnormal constituents of urine. 2. Barington's micturition reflexes. 3. Process of micturition. 4. Physiology of urinary bladder. 5. Diabetes insipidus.
	Diuretics, Chronic renal failure.	Students will be able to learn about: 1. Diuretics, mode of action of osmotic diuretics. 2. Chronic renal failure- types & causes.
	Sweat glands, sebaceous gland.	Students will be able to learn about: 1. Cutaneous circulation and its significance 2. Structure of sweat glands & functions. 3. Structure of sebaceous gland & functions.
	Thermoregu lation	Students will be able to learn about: 1. Concept of homeothermy and poikilothermy. 2. Heat stress, pyrexia. 3. Hibernation.
	aterials Used	Whiteboard, Marker, models, Reference books.
Basis of Clas	s taken	Concept discussion, MCQ related to the tonic
Assessment Feedback to	students	Performance based discussion/ necessary steps taken/
Revision / Re Classes	emedial	reviewing weak points & nurturing their concept. Revision & remedial classes for slow learners.

Semester	5th Semester (General) -Theory		
Paper	05 (G5A)		
Unit XII:	Sub Topic	Learning objectives	
	Immunity, Complemen t system.	Students will be able to learn about: 1. Immunity- humoral & cell mediated. 2. Complement system-classical & alternate.	
	Immune responses, vaccination.	Students will be able to learn about: 1. Primary immune response. 2. Secondary immune response. 3. Vaccination.	
Immunology	Clonal selection hypothesis.	Students will be able to learn about: 1. Clonal selection hypothesis of antibody production. 2. Role of plasma cells & memory cells.	
	Cell mediated immunity	Students will be able to learn about: 1. Cell mediated immunity. 2. Role of cytotoxic T cell.	
	ELISA, RIA.	Students will be able to learn about: 1. Procedure & applications of ELISA. 2. Procedure & applications of RIA.	
Resources/Ma	aterials Used	Whiteboard, Marker, models, Reference books.	
Basis of Class	taken	Concept discussion, MCQ related to the topic.	
Assessment		Class Test/Assignment	
Feedback to s	tudents	Performance based discussion/ necessary steps taken/ reviewing weak points & nurturing their concept.	
Revision / Re Classes	medial	Revision & remedial classes for slow learners.	

23-9-2022

Department of Human Physiology Holy Cross College, Agartala

LESSON PLAN

for 1st, 3rd, and 5th Semester Theory Classes

Academic Year: September, 2022 – March, 2023

Dr. Balaram Sutradhar

Assistant Professor Department of Human Physiology

Holy Cross College, Agartala

Name of the Faculty	Dr. Balaram Sutradhar			
Department	Human Physiology			
Paper				
Paper Code	01 (H1)			
Semester	1 st (Honours)			
Unit 2:	Subtopic	Learning objectives		
	Dialysis and ultra filtration	Students will be able to: (1) Learn about dialysis process and ultra filtration technique. (2) Learn about their physiological significance.		
	Radioactivity	Students will be able to: (1) Learn about radioactivity and various radioactive molecule (2) Learn about biological application radioactive molecules		
	Fundamental idea of sub cellular fractionation	Students will be able to: (1) Learn about fundamental idea of different technique of sub-cellular fractionation (2) Learn about application of different technique in the field of biology or research.		
Unit 4:	Subtopic	Learning objectives		
	Enzyme & classification	Students will be able to: (1) Learn about definition of enzyme, apo-enzyme, co-factor, prosthetic group and holoenzyme (2) Learn about types of enzyme and system of enzyme classification. (3) Learn about properties of enzyme		
	Mechanism of enzyme action	Students will be able to: (1) Learn about basic mechanism of enzyme action (2) Learn about lock and key theory and induced fit theory (3)		
	Km value and its significance	Students will be able to: (1) Learn about the derivation of MM equation (2) Learn about km and V max value using MM Plot		
Biochemistry and enzymology	Enzyme regulation and enzyme inhibition	Students will be able to: (1)Learn about the regulatory mechanism of enzyme action. (2) Learn about the inhibition of enzyme action (3) Learn about competitive, non competitive and un-competitive inhibition of enzyme action. (4) learn about allosteric regulation of enzyme action. (5) learn about feedback inhibition.		
	Carbohydrates	Students will be able to: (1) Learn about carbohydrate, its types and structural characters. (2) Learn about aldose and ketose sugar (3) Learn about isomerism, isomer, epimerism and epimer (4) Learn about mutarotation, glycosodic bond (5) Learn about polysaccharide and mucoploysaccharide (6) Learn about biological significance of sugar		
	Proteins	Students will be able to: (1) Learn about basic structural feature of amino acid, types. (2) Learn about peptide and peptide bond (3) Learn about different protein structure: primary, secondary, tertiary and quaternary structure. (4) Learn about Rama-chandran plot		

	Fats and sterols	Students will be able to: (1) Learn about basic structural feature of fat and fatty acids (2) Learn about iodine number and rancidity (3) Learn about basics of sterol (4) Learn about biological significance of fatty acids and cholesterol	
Resources/Materials Used	PowerPoint presentation, Videos, Whiteboard, Marker, Reference books & problems.		
Basis of Class taken	Concept discussion, clearing the basic ideas, continuation of fluency of the topic, questions and answering, encourage to clear doubts, taking class tests etc.		
Assessment	Class Test/Assignment		
Feedback to students	Performance based discussion/ necessary steps taken/ reviewing weak points & nurturing their concept.		
Revision / Remedial Classes	Pending		

	Lesson Plan (Academic	Session 2022-2023, Odd Semester)	
Name of the Faculty	Dr. Balaram Sutradhar		
Department	Human Physiology		
Paper	l l l l l l l l l l l l l l l l l l l		
Paper Code	01 (H1)		
Semester	1 st (General)		
Unit 2:	Subtopic	Learning objectives	
	Dialysis and ultra filtration	Students will be able to: (3) Learn about dialysis process and ultra filtration technique. (4) Learn about their physiological significance.	
	Radioactivity	Students will be able to: (3) Learn about radioactivity and various radioactive molecule (4) Learn about biological application radioactive molecules	
	Fundamental idea of sub cellular fractionation	Students will be able to: (1) Learn about fundamental idea of different technique of sub-cellular fractionation (2) Learn about application of different technique in the field of biology or research.	
Unit 4:	Subtopic	Learning objectives	
	Enzyme & classification	Students will be able to: (4) Learn about definition of enzyme, apo-enzyme, co-enzyme, co-factor, prosthetic group and holoenzyme (5) Learn about types of enzyme and system of enzyme classification. (6) Learn about properties of enzyme	
	Mechanism of enzyme action	Students will be able to: (4) Learn about basic mechanism of enzyme action (5) Learn about lock and key theory and induced fit theory (6)	
Biochemistry and	Km value and its significance	Students will be able to: (3) Learn about the derivation of MM equation (4) Learn about km and V max value using MM Plot	
enzymology	Enzyme regulation and enzyme inhibition	Students will be able to: (1)Learn about the regulatory mechanism of enzyme action. (2) Learn about the inhibition of enzyme action (3) Learn about competitive, non competitive and un-competitive inhibitio of enzyme action. (4) learn about allosteric regulation of enzyme action. (5) learn about feedback inhibition.	
	Carbohydrates	Students will be able to: (7) Learn about carbohydrate, its types and structural characters. (8) Learn about aldose and ketose sugar (9) Learn about isomerism, isomer, epimerism and epimer (10) Learn about mutarotation, glycosodic bond (11) Learn about polysaccharide and mucoploysaccharide (12) Learn about biological significance of sugar	

	Proteins	Students will be able to: (5) Learn about basic structural feature of amino acid, types. (6) Learn about peptide and peptide bond (7) Learn about different protein structure: primary, secondary, tertiary and quaternary structure. (8) Learn about Rama-chandran plot.
	Fats and sterols	Students will be able to: (5) Learn about basic structural feature of fat and fatty acids (6) Learn about iodine number and rancidity (7) Learn about basics of sterol (8) Learn about biological significance of fatty acids and cholesterol
Resources/Materials Used	PowerPoint presentation, Videos, Wh	niteboard, Marker, Reference books & problems.
Basis of Class taken	Concept discussion, clearing the basic ideas, continuation of fluency of the topic, questions and answering, encourage to clear doubts, taking class tests etc.	
Assessment	Class Test/Assignment	
Feedback to students	Performance based discussion/ neces	sary steps taken/ reviewing weak points & nurturing their concept.
Revision / Remedial Classes	Pending	

	Lesson Plan (Academ	nic Session 2022-2023, Odd Semester)		
Name of the Faculty	Dr. Balaram Sutradhar			
Department	Human Physiology			
Paper	, ,	•=		
Paper Code	03 (H3) (Theory)			
Semester	3 rd (Honours)			
Unit VII:	Subtopic	Learning objectives		
	Biosynthesis of cholesterol	Students will be able to: (1) Learn about enzymatic steps of cholesterol biosynthesis (2) Learn about mechanism of cholesterol biosynthesis (3) Learn about physiological significance of cholesterol biosynthesis.		
Metabolic Biochemistry and	Purine and pyrimidine catabolism	Students will be able to: (1) Learn about catabolic pathway of purine. (2) Learn about catabolic pathway of pyrimidine.		
Molecular Respiration	Organization of ETC	Students will be able to: (1) Learn about organization of electron transport chain (2) Learn about chemi-osmotic hypothesis. (3) Learn about different types of uncouplers (4) Learn about mechanism of oxidative phosphorylation (5) Learn about structure of F0-F1 complex and different types of inhibitors.		
Unit VIII:	Subtopic	Learning objectives		
A 10000	Calorific value & Bomb calorimeter	Students will be able to: (1) Learn about calorific value of foods (2) Learn about determination of calorific value by Bomb calorimeter. (3) Learn about specific dynamic action of foods, RQ and physiological importance.		
Digestive System and Nutrition	BMR	Students will be able to: (1) Learn about what is BMR and what are the factors affecting BMR. (2) Learn about the determination of BMR by Benedict's Roth apparatus.		
	RDA	Students will be able to: (1) Learn about the dietary requirements of carbohydrate, protein and fat. (2) Learn about what is RDA? RDA of carbohydrate, protein and fat. (3) Learn about biological value of protein, amino acids and fat.		

	Food group and mal nutrition	Students will be able to: (1) Learn about various food groups. (2) Learn about scientific process of formulation of balanced diet for child, adult, pregnant women, lactating mother and elderly people. (3) Learn about malnutrition, types, preventive measure (4) Learn about obesity and its impact on human health	
Resources/Materials Used	PowerPoint presentation, Videos, Whiteboard, Marker, Reference books & problems given in that		
Basis of Class taken	Concept discussion, clearing the basic ideas, continuation of fluency of the topic, questions and answering, encourage to clear doubts, taking class tests etc.		
Assessment	Class Test/Assignment		
Feedback to students	Performance based discussion/ necessary steps taken/ reviewing weak points & nurturing their concept.		
Revision / Remedial Classes	Pending		

11		mic Session 2022-2023, Odd Semester)	
Name of the Faculty	Dr. Balaram Sutrdhar		
Department	Human Physiology		
Paper	- I		
Paper Code	03 (P3A) (Theory)		
Semester	3 rd (General)		
Unit VII:	Subtopic	Learning objectives	
	Ascending tract	Students will be able to: (1) Learn about ascending tract or sensory tract. Its origin, course and termination. (2) Learn about the physiological functions of sensory tract	
Neurochemistry and Neurophysiology	Descending tract	Students will be able to: (1) Learn about descending tract or motor tract. Its origin, course and termination. (2) Learn about the physiological functions of motor tract (3) Learn about upper and lower motor neuronal lesion	
Unit-VIII	Subtopic	Learning objectives	
Renal physiology and stress biochemistry	Oxidative stress, free radicals and antioxidants	Students will be able to: (1) Learn about oxidative stress, free radicals. (2) Learn about the mechanism of generation of free radicals or ROS (3) Learn about the anti oxidants and role of various types of antioxidant enzymes. (4) Learn about the role of SOD, catalase and glutathione.	
	Pesticides, OP, OC	Students will be able to: (1) Learn about basics of pesticides, OP and OC	
	Active and passive smoking, harmful effects.	Students will be able to: (1) Learn about active and passive smoking. (2) Learn about harmful effect of smoking.	
Resources/Materials Used	PowerPoint presentation, Videos, W	hiteboard, Marker, Reference books & problems given in that	
Basis of Class taken	Concept discussion, clearing the basic ideas, continuation of fluency of the topic, questions and answering, encourage to clear doubts, taking class tests etc.		
Assessment	Class Test/Assignment		
Feedback to students	Performance based discussion/ necessary steps taken/ reviewing weak points & nurturing their concept.		
Revision / Remedial Classes	Pending		

Lesson Plan (Academic Session 2022-2023, Odd Semester)		
Name of the Faculty	Dr. Balaram Sutradhar	

partment	Human Physiology		
per Code	05 (H5) (Theory)		
per Code	5th(Honours)		
mester Unit XI:	Subtopic	Learning objectives	
E	Body posture	Students will be able to: (1) Learn about physiological basis of maintenance and regulation o body posture equilibrium	
	Learning and memory	Students will be able to: (1) Learn about neuro-physiological basis of learning and memory process.	
Nervous system	Neurochemistry	Students will be able to: (1) Learn about macromolecular neurochemistry (2) Learn about carbohydrate utilization in brain (3) Learn about role of protein and fat in brain.	
	Neurotransmitter chemistry	Students will be able to: (1) Learn about the chemical feature of different types of excitatory, inhibitory and mixed neurotransmitter (2) Learn about the role of different types of transmitter like acetylcholine, serotonin, peptides etc. (3) Learn about the relationship between different neurological disorder and neurotransmitter	
Unit XIV:	Subtopic	Learning objectives	
Reproductive physiology & developmental biology	Reproductive system	Students will be able to: (1) Learn about anatomical organization of male and female reproductive system (2) Learn about characteristics of primary and secondary sex organs. Basics of puberty. (3) Learn about histology of testis and ovary. Different male and female sex hormone and their role. (4) Learn about menstrual cycle and role of different hormone in the regulation of this cycle.	
	Embryogenesis	Students will be able to: (1) Learn about spermatogenesis and oogenesis process. (2) Learn about role of different hormones in gametogenesis. (3) Learn about fertilization and post fertilization event (4) Learn about placenta and different placental hormone and their role.	
	Pregnancy	Students will be able to: (1) Learn about pregnancy and physiological changes during pregnancy (2) Learn about pregnancy test (3) Learn about physiological process of parturition.	
	Mammary gland and lactation	Students will be able to: (1) Learn about development process of mammary gland. (2) Learn about physiology of lactation, its control, mechanism of milk ejection, importance of colostrums. (3) Learn about physiology of menopause. (4) Learn about hormonal control of fertility.	
Resources/Material Used	PowerPoint presentation, Videos, Whiteboard, Marker, Reference books & problems given in that		
Basis of Class taker	Concept discussion, clearing the basic ideas, continuation of fluency of the topic, questions and answering, encourage to clear doubts, taking class tests etc.		
Assessment Feedback to students	Class Test/Assignment Performance based discussion/ necessary steps taken/ reviewing weak points & nurturing their concept.		
Revision / Remedia Classes	Pending		

Name of the Faculty	Dr. Balaram Sutradhar		
Department	Human Physiology		
Paper			
Paper Code	P5A (Theory)		
Semester	5 th (General)		
Unit XII:	Subtopic	Learning objectives	
Molecular biology and immunology	DNA & RNA	Students will be able to: (1) Learn about chemical nature of DNA and RNA (2) Learn about DNA- the genetic material experimental evidences. (3) Semi-conservative mode of DNA Replication	
	DNA replication	Students will be able to: (1) Learn about prokaryotic DNA replication process. Okazaki fragments.	
	Transcription	Students will be able to: (1) Learn about prokaryotic DNA transcription process. (2) Learn about post transcriptional process	
	Translation	Students will be able to: (1) Learn about protein synthesis process in prokaryotes, activation of amino acids. Role of A and P site of ribosome.	
	Cloning	Students will be able to: (1) Learn about cloning of DNA into cloning vectors.	
Resources/Materials Used	PowerPoint presentation, Videos, Whiteboard, Marker, Reference books & problems given in that		
Basis of Class taken	Concept discussion, clearing the basic ideas, continuation of fluency of the topic, questions and answering, encourage to clear doubts, taking class tests etc.		
Assessment	Class Test/Assignment		
Feedback to students	Performance based discussion/ necessary steps taken/ reviewing weak points & nurturing their concept.		
Revision / Remedial Classes	Pending		

Classes		10.70
	Lesson Plan (Acader	nic Session 2022-2023, Odd Semester)
Name of the Faculty	Dr. Balaram Sutradhar	
Department	Human Physiology	
Paper	Б,	
Paper Code	03 (P3B) (Practical)	
Semester	3 rd (Hons.)	
Unit:	Subtopic	Learning objectives
Clinical biochemistry	Estimation of serum cholesterol	Students will be able to: (1) Learn about estimation of serum cholesterol by Ferric chloride method.
	Estimation of blood glucose	Students will be able to: (1) Learn about estimation of blood glucose by Folin-Wu method
	Estimation of serum/plasma protein	Students will be able to: (1) Learn about estimation of serum/plasma protein by Biuret method
	Estimation of serum triglyceride	Students will be able to: (1) Learn about estimation of serum triglycerides by Nerl and Fring method.
	Estimation of serum SGPT/SGOT	Students will be able to: (1) Learn about estimation of serum SGPT/SGOT
Resources/Materials Used	Hands on training, Practical in Laboratory, PowerPoint presentation, Videos, Whiteboard, Marker, Reference books & problems given in that	
Basis of Class taken	Concept discussion, clearing the basic ideas, continuation of fluency of the topic, questions and answering, encourage to clear doubts, taking class tests etc.	
Assessment	Class Test/Assignment	

Feedback to students	Performance based discussion/ necessary steps taken/ reviewing weak points & nurturing their concept.	
Revision / Remedial Classes	Pending	

	Lesson Plan (Acade	mic Session 2022-2023, Odd Semester)	
Name of the Faculty	Dr. Balaram Sutradhar		
Department	Human Physiology		
Paper	1.7		
Paper Code	03 (H3B) (Practical)		
Semester	3 rd (General)		
Unit V:	Subtopic	Learning objectives	
Excretory system	Models of excretory system	Students will be able to: (1) Learn about model of kidney, ureter, urinary bladder, urethra, their anatomical position, structure and function	
Shoretory system	Histological slides	Students will be able to: (1) Learn about histological slides in relation to skin and excretory system.	
Reflex	Human reflex	Students will be able to: (1) Learn about superficial (planter/abdominal), deep (knee-jerk/biceps & triceps jerk reflexex).	
Strength and endurance	Muscle Strength and endurance	Students will be able to: (1) Learn about recording of muscle Strength and endurance by handgrip dynamometer.	
Resources/Materials Used	Hands on training, Practical in Laboratory, PowerPoint presentation, Videos, Whiteboard, Marker, Reference books & problems given in that		
Basis of Class taken	Concept discussion, clearing the basic ideas, continuation of fluency of the topic, questions and answering, encourage to clear doubts, taking class tests etc.		
Assessment	Class Test/Assignment		
Feedback to students	Performance based discussion/ necessary steps taken/ reviewing weak points & nurturing their concept.		
Revision / Remedial Classes	Pending		

	Lesson Plan (A	cademic Session 2022-2023, Odd Semester)
Name of the Faculty	Dr. Balaram Sutradhar	
Department	Human Physiology	
Paper		The first Programme and Alberta State (
Paper Code	05 () (Practical)	
Semester	5 th (Hons.)	
Unit:	Subtopic	Learning objectives
Experimental physiology	Experimental physiology	Students will be able to: (1)Study of effects of ions, drugs, and hypoxia, on intestinal movements and activity of heart. (2) Study of effects of Ca2+, Mg2+ ions, hypoxia, adrenalin, nicotine, Ach, on intestinal movements and activity of heart from supplied curves.
Reflex	Human reflex	Students will be able to: (2) Learn about superficial (planter/abdominal), deep (knee-jerk/biceps & triceps jerk reflexex). (3) Rhomberg sign- vestibular function.
Resources/Materials Used		aboratory, PowerPoint presentation, Videos, Whiteboard, Marker, Reference books
Basis of Class taken	& problems given in that Concept discussion, clearing the basic ideas, continuation of fluency of the topic, questions and answering, encourage to clear doubts, taking class tests etc.	

Assessment	Class Test/Assignment	
Feedback to	Performance based discussion/ necessary steps taken/ reviewing weak points & nurturing their concept.	
students		
Revision / Remedial	Pending	
Classes		

Department of Human Physiology Holy Cross College, Agartala

LESSON PLAN

for 1st, 3rd, and 5th Semester Theory Classes

Academic Year: September, 2022 – March, 2023

Dr. Ashish Kumar Singha

Assistant Professor Department of Human Physiology

Holy Cross College, Agartala

NT C.1		Session 2022-2023, Odd Semester)	
Name of the Faculty	Dr. Ashish Kumar Singha		
Department	Human Physiology		
Paper	3		
Paper Code	01 (H1)	ş	
Semester	1 st (Honours)		
Unit 1:	Subtopic	Learning objectives	
	Structure and functions of cell organelles	Students will be able to: (1) Know about structure of cell and its organelles. (2) Understand the functions of cell organelles.	
	Membrane models, membrane transports	Students will be able to: (1) Learn about cell membrane models and modern concepts of cell membrane. (2) Understand insights of passive and active membrane transport.	
	Ultra-structure of mitochondria	Students will be able to know: About structure and functions mitochondria	
Structural Units of Human System	Nucleus	Students will be able to: (1) Learn about the organization and structure of nucleus. (2) Understand about nucleolus, nuclear membranes, pores.	
	Cytoskeleton	Students will be able to: (1) Learn about structure and types of cytoskeleton (2) Understand the functions of cytoskeleton	
	Cell cycle	Students will be able to: (1) Know about basic concepts of cell cycle; mitosis and meiosis. (2) Learn about different phages of cell cycle.	
	Apoptosis and necrosis	Students will be able to: (1) Learn about basic ideas of apoptosis and necrosis and its mode of action. (2) Know about differences between necrosis and apoptosis.	
	Smooth, cardiac and skeletal muscle	Students will be able to: (1) Learn about the structure of smooth, cardia and skeletal muscle and movement of skeletal muscle. (2) Understand about the flexion, extension abduction and adduction.	
	Bones	Students will be able to: (1) Learn about the structure and types of bones and cartilage, ligaments. (2) Understand about some functions of bone and disease of bone.	

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Biophysical and Biochemical Principle	Biophysical processes	Students will be able to: (1) Learn about osmosis, diffusion, surface tension and viscosity, its definition and significance. (2) Learn about basic concepts of homeostasis and associated factors.	
	Donnan membrane equilibrium	Students will be able to: (1) Learn about biological application of Donnan membrane equilibrium and its relationship with osmotic pressure and pH (2) Learn about calculate the equations of Donnan membrane equilibrium.	
	Acid bases	Students will be able to: (1) Learn about pH and buffers, Handerson-Hasselbach equation. (2) Calculate the mathematical equations on pH and buffers.	
	Colloids	Students will be able to: (1) Learn about properties and classification of colloids. (2) Know about biological importance of colloids.	
Resources/M aterials Used	PowerPoint presentation, Videos, Whiteboard, Marker, Reference books & problems given in that		
Basis of Class taken	Concept discussion, clearing the basic ideas, continuation of fluency of the topic, questions and answering, encourage to clear doubts, taking class tests etc.		
Assessment	Class Test/Assignment		
Feedback to students	Performance based discussion/ necessary steps taken/ reviewing weak points & nurturing their concept.		
Revision / Remedial Classes	Pending		

Name of the Faculty	Lesson Plan (Academic Session 2022-2023, Odd Semester) Dr. Ashish Kumar Singha		
Department	Human Physiology		
Paper	julia		
Paper Code	01 (G1)		
Semester	1 st (General)		
Unit 1:	Subtopic	Learning objectives	
	Structure and functions of cell organelles	Students will be able to: (1) Know about structure of cell and its organelles. (2) Understand the functions of cell organelles.	
	Membrane models, membrane transports	Students will be able to: (1) Learn about cell membrane models and modern concepts of cell membrane. (2) Understand insights of passive and active membrane transport.	
Structural Units of Human System	Cytoskeleton	Students will be able to: (1) Learn about structure and types of cytoskeleton (2) Understand the functions of cytoskeleton	
	Cell cycle	Students will be able to: (1) Know about basic concepts of cell cycle; mitosis and meiosis. (2) Learn about different phages of cell cycle.	
	Apoptosis and necrosis	Students will be able to: (1) Learn about basic ideas of apoptosis and necrosis and its mode of action. (2) Know about differences between necrosis and apoptosis.	
	Smooth, cardiac and skeletal muscle	Students will be able to: (1) Learn about the structure of smooth, cardia and skeletal muscle and movement of skeletal muscle. (2) Understand about the flexion, extension abduction and adduction.	
	Bones	Students will be able to: (1) Learn about the structure and types of bones and cartilage, ligaments. (2) Understand about some functions of bone and disease of bone.	
Unit 2:	Subtopic	Learning objectives	
Biophysical and Biochemical	Biophysical processes	Students will be able to: (1) Learn about osmosis, diffusion, surface tension and viscosity, its definition and significance. (2) Learn about basic concepts of homeostasis and associated factors.	
Principle	Donnan membrane equilibrium	Students will be able to:	

		 (1) Learn about biological application of Donnan membrane equilibrium and its relationship with osmotic pressure and pH (2) Learn about calculate the equations of Donnan membrane equilibrium.
	Asidhaaa	Students will be able to: (1) Learn about pH and buffers, Handerson-
	Acid bases	Hasselbach equation. (2) Calculate the mathematical equations on pH and buffers.
	Colloids	Students will be able to: (1) Learn about properties and classification of colloids.
		(2) Know about biological importance of colloids.
Resources/M aterials Used	PowerPoint presentation problems given in that	, Videos, Whiteboard, Marker, Reference books &
Basis of Class taken		ring the basic ideas, continuation of fluency of the wering, encourage to clear doubts, taking class tests
Assessment	Class Test/Assignment	i i i
Feedback to	Performance based discu	ission/ necessary steps taken/ reviewing weak points
students	& nurturing their concep	ot.
Revision /	Pending	
Remedial		
Classes		1 116 Car 100

27 6.1		Session 2022-2023, Odd Semester)
Name of the Faculty	Dr. Ashish Kumar Singha	a
Department	Human Physiology	
Paper		
Paper Code	03 (H3) (Theory)	
Semester	3 rd (Honours)	
Unit VII:	Subtopic	Learning objectives
	Glycolysis, glycogenolysis and TCA cycle	Students will be able to: (1) Learn about enzymatic mechanism and regulation of glycolysis. (2) Learn about enzymatic mechanism and regulation of TCA cycle. (3) Understand about enzymatic mechanism and regulation of glycogenolysis.
Metabolic Biochemistry and Molecular Respiration	Fatty acid biosynthesis	Students will be able to: (1) Learn about oxidation and biosynthesis of fatty acids (2) Understand insights energetics of β-oxidation, Ketone bodies formation- function and fate.
	Deamination and Transamination	Students will be able to: (1) Learn about Deamination and Transamination. (2) Know about Catabolism of Amino acids- Phenylalanin, Tyrosine, S-containing amino acids and tryptophan
	Urea formation	Students will be able to: Know about urea formation- mechanism and regulation.
Unit VIII:	Subtopic	Learning objectives
	Alimentary tract and digestive glands	Students will be able to: (1) Learn about anatomy and histology of alimentary tract. (2) Learn about anatomy and histology of digestive glands.
Digestive System and Nutrition	Digestive juices	Students will be able to: (1) Learn about composition, function, formation, mechanism of secretion, regulation of secretion of digestive juices. (2) Learn about enterohepatic circulation of bile salts and bile pigments – their significance, role of bile in fat digestion and absorption.
-	Formation of HCl	Students will be able to: (1) Learn about mechanism of formation of HCl. (2) Know about cholelithiasis, concept of hyperacidity, achlorohydria.

		Students will be able to:
1= 1' ' .		Learn about digestion and absorption of
Laat Turr -	absorption	carbohydrate, fats, proteins, vitamin B12, iron,
		calcium and iodine.
		Students will be able to:
	Enteric nervous system	Learn about enteric nervous system, movements of
	Effective fiet vous system	alimentary canals, swallowing phenomenon-
		mechanism, defecation mechanism.
	Disorders of digestive	Students will be able to:
	system	Learn about disorders of digestive system, peptic
	System	ulcer, vomiting, constipation.
		Students will be able to:
	Vitamins	Learn about vitamins- water and fat soluble
		vitamins-sources, daily requirements and function.
Resources/M		, Videos, Whiteboard, Marker, Reference books &
aterials Used	problems given in that	
Basis of		ring the basic ideas, continuation of fluency of the
Class taken		vering, encourage to clear doubts, taking class tests
	etc.	<u> Marko arrea esperanta a falla filosopera a filosopera a filosopera a filosopera a filosopera a filosopera fi</u>
Assessment	Class Test/Assignment	
Feedback to		ission/ necessary steps taken/ reviewing weak points
students	& nurturing their concep	
Revision /	Pending	
Remedial	Link his garant in the	
Classes		
		15 - 15 보고 있다. 이 전 15 보다 15 발생이 생각하는 경 송이 되었다.

	Lesson Plan (Academic	Session 2022-2023, Odd Semester)	
Name of the Faculty	Dr. Ashish Kumar Singha	du Semester)	
Department	Human Physiology		
Paper			
Paper Code	03 (P3A) (Theory)		
Semester	3 rd (General)		
Unit VII:	Subtopic	Learning objectives	
	Macromolecular neurochemistry	Students will be able to: (1) Learn about carbohydrate utilization in the brain. (2) Learn about role of Protein and Lipids in the brain.	
	Transmitter neurochemistry	Students will be able to: Learn about Acetylcholine, Catecholamines, serotonin, Amino acids and Peptides.	
	Skin and Cutaneous recptors	Students will be able to: Learn about Skin structure, Diversity and types of receptors.	
Neurochemis try and	Nervous system	Students will be able to: Know about Structural and Functional organization of nervous system.	
Neurophysiol ogy	Neurons	Students will be able to: Know about properties of neuron, genesis and propagation of nerve impulse	
	Transmission of impulse	Students will be able to: Learn about transmission of impulse: Synaptic and Myoneural.	
	Reflex	Students will be able to: (1) Learn about Reflex, Reflex arc. Properties of reflex action. (2) Learn about Conditioned and unconditioned reflexes	
	Skeletal muscle contraction	Students will be able to: Learn about modern concept of Skeletal muscle contraction.	
Resources/M aterials Used	PowerPoint presentation, Videos, Whiteboard, Marker, Reference books &		
Basis of Class taken	1	ring the basic ideas, continuation of fluency of the wering, encourage to clear doubts, taking class tests	
Assessment	Class Test/Assignment	V	
Feedback to students		ission/ necessary steps taken/ reviewing weak points	

Revision /	Pending	
Remedial		
Classes		

Classes		
	Lesson Plan (Academic	Session 2022-2023, Odd Semester)
Name of the Faculty	Dr. Ashish Kumar Singh	
Department	Human Physiology	
Paper		
Paper Code	05 (H5) (Theory)	
Semester	5 th (Honours)	
Unit XI:	Subtopic	Learning objectives
	Brain ventricles	Students will be able to: (1) Learn about Brain ventricles- basic concepts. (2) Learn about CSF – composition, formation, circulation and functions.
Nervous System	Ascending tracts and descending tracts	Students will be able to: (1) Learn about ascending tracts carrying touch, pain, pressure, temperature, kinesthetic sensation; (2) Know about descending tracts- corticospinal, corticobulbar, extra pyramidal, rubrospinal, reticulospinal tracts. Upper and lower motor neurons and their lesions.
	Cerebral circulation	Students will be able to: Learn about cerebral circulation- course, factors affecting.
	Limbic system	Students will be able to: Understand about limbic system- structure, connection and function.
Unit XIII:	Subtopic	Learning objectives
Endocrinolog y and Chronobiolo gy	Concept on endocrine system.	Students will be able to: (1) Learn about concept on autocrine, paracrine and endocrine system. (2) Know about anatomical organization of endocrine glands in the body. (3) Learn about chemical classification of hormones. (2) Understand about different types of hormone receptors. Students will be able to:
	Mode of actions of hormones	(1) Learn about Mode of actions of hormones.(2) Learn about signal transduction, second messengers.
	Pituitary glands	Students will be able to:

20 - 11	7	Learn about pituitary glands – anatomy, histology
-1 - 1 I		
· · · · · · · · · · · · · · · · ·		and function of anterior and posterior pituitary
		hormones.
J	Hypothalamo-	Students will be able to:
	hypophyseal portal	Learn about hypothalamo- hypophyseal portal
	system	system and tracts and their significance.
		Students will be able to:
		(1) Learn about thyroid– anatomy, biosynthesis
		and physiological functions of their hormones.
		(2) Know about parathyroid – anatomy,
	Thyroid, parathyroid	biosynthesis and physiological functions of their
	and adrenal glands	hormones.
		(3) Learn about adrenal glands – anatomy,
		biosynthesis and physiological functions of their
		hormones.
		Students will be able to:
-ii-	Endocrine pancreas	Learn about hormones of Islets of Langerhans,
		chemistry and functions of insulin and glucagon.
		Students will be able to:
		Know about role of different hormones. Diabetes
	Blood sugar regulation	mellitus – Type- I and Type - II, their causes and
		symptoms, glucose tolerance test and its
		significance, role of GLUT transporters.
	Hormones related to	Students will be able to:
	hunger and satiety	Learn about leptin and ghrelin and adiponectin.
	Hypo and hyper	Students will be able to:
	functions of endocrine	Learn about Hypo and hyper functions of
	glands.	endocrine glands.
		Students will be able to:
	Regulation of hormones	Learn about feedback mechanism of hormonal
		regulation.
		Students will be able to:
		Learn about concept of biological clock, role of
	Biological clock	pineal glands, pituitary and hypothalamus on
		biological clock.
		Students will be able to:
	Different biological	Learn about different biological rhythms:
	rhythms	circadian, infradian, ultradian, tidal and linear
		rhythms. Gene oscillations.
Resources/M	PowerPoint presentation	, Videos, Whiteboard, Marker, Reference books &
aterials Used	problems given in that	
Basis of	Concept discussion, clea	ring the basic ideas, continuation of fluency of the
Class taken	topic, questions and ansy	wering, encourage to clear doubts, taking class tests
Class taken	etc.	, , , , , , , , , , , , , , , , , , , ,
Assessment	Class Test/Assignment	
Feedback to	Performance based discu	ission/ necessary steps taken/ reviewing weak points
students	& nurturing their concept	

Revision /	Pending		y Auto	
Remedial	A. 3			
Classes	F. F			

		mic Session 2022-2023, Odd Semester)	
Name of the Faculty	Dr. Ashish Kumar Singha		
Department	Human Physiology		
Paper			
Paper Code	P5A (Theory)		
Semester	5 th (General)		
Unit XI:	Subtopic	Learning objectives	
	Nutrients	Students will be able to: (1) Learn about role of carbohydrates, fat, protein in nutrition. (2) Know about role of vitamins and minerals in nutrition	
	Nutritional requirements	Students will be able to: Learn about nutritional requirements and formulation of balanced diet for adolescents and college students, workers with sedentary, moderate and heavy physical activity, pregnant and lactating women.	
	BMR	Students will be able to: Learn about BMR- Definition and determination, controlling factors affecting and its significance.	
Nutrition and Dietetics	RDA	Students will be able to: Know about biological value of protein, RQ, SDA and RDA. Protein calorie malnutrition – definition symptoms, classifications, major causative factors and remedial measure.	
	Vitamins	Students will be able to: Learn about vitamins – source, requirements, deficiency symptoms and functions.	
	Minerals	Students will be able to: Learn about trace elements – iron, calcium and iodine: source, requirements, deficiency symptoms and physiological functions.	
	Diet survey	Students will be able to: Learn about diet survey- principle, significance.	
	Diet in different diseases	Students will be able to:	

		Learn about different diets plans in diarrhoea, diabetes, goitre, obesity, hypertension.
Unit VIII:	Subtopic	Learning objectives
	Immune system	Students will be able to: (1) Learn about Innate Immunity- their components. (2) Learn about acquired Immunity- their components.
Molecular Biology and Immunology	Lymphoid organs	Students will be able to: Learn about primary & secondary lymphoid organs, their functions.
minunology	Antigen	Students will be able to: Learn about antigen, immunogen, epitope, hapten, paratope, MHC molecules, CDr, CD markers- general idea.
Resources/M aterials Used	PowerPoint presentation, problems given in that	, Videos, Whiteboard, Marker, Reference books &
Basis of Class taken	Concept discussion, clear	ring the basic ideas, continuation of fluency of the vering, encourage to clear doubts, taking class tests
Assessment	Class Test/Assignment	
Feedback to		ssion/ necessary steps taken/ reviewing weak points
students	& nurturing their concept	
Revision / Remedial	Pending	

	Lesson Plan (Academic	Session 2022-2023, Odd Semester)
Name of the Faculty	Dr. Ashish Kumar Singha	
Department	Human Physiology	
Paper		The state of the s
Paper Code	03 (P3B) (Practical)	
Semester	3 rd (General)	
Unit:	Subtopic	Learning objectives
Nutritional Biochemistry	Estimation and identification of urinal constituents	Students will be able to: Do identify of abnormal constituents of Urine: albumin, ketone, sugar (glucose), bile salt and blood using urine samples.
	Estimation of creatinine in blood.	Students will be able to: Estimate creatine content from blood samples
Resources/M aterials Used	Hands on training, Practical in Laboratory, PowerPoint presentation, Videos, Whiteboard, Marker, Reference books & problems given in that	
Basis of	Concept discussion, clear	ring the basic ideas, continuation of fluency of the
Class taken	topic, questions and answering, encourage to clear doubts, taking class tests etc.	
Assessment	Class Test/Assignment	
Feedback to	Performance based discussion/ necessary steps taken/ reviewing weak points	
students	& nurturing their concept.	
Revision /	Pending	
Remedial		
Classes	A The state of the	

	Lesson Plan (Academic	Session 2022-2023, Odd Semester)
Name of the Faculty	Dr. Ashish Kumar Singha	
Department	Human Physiology	
Paper		
Paper Code	03 (H3B) (Practical)	
Semester	3 rd (Honours)	
Unit V:	Subtopic	Learning objectives

Clinical Biochemistry	Qualitative identification of biological samples	Students will be able to: Identify by themselves of bio-chemical samples of physiological importance – HCl, Lactic acid, Uric acid, albumin, peptone, gelatin, Stach, dextrin, Glucose, Fructose, Maltose, Lactose, Sucrose, Urea, Bile Salt, acetone, Glycerol.
Unit:	Subtopic	Learning objectives
	Blood hemoglobin	Students will be able to: Estimation of blood hemoglobin blood samples y themselves.
	Quantitative Estimation of Vit C in blood	Students will be able to: Estimate of vitamin C content in blood by 2,6- dichlorophenol indophenol method from blood sample by themselves.
Nutritional Biochemistry	Quantitative Estimation of lactose content from milk	Students will be able to: Estimate of lactose content of milk by Benedict's method from milk by themselves.
	Quantitative Estimation of carbohydrate content	Students will be able to: Estimate of percentage quantity of carbohydrate in rice and potato by themselves.
	Estimation of moisture content of food	Students will be able to: Estimate of moisture content of food by themselves.
Resources/M aterials Used	Hands on training, Practical in Laboratory, PowerPoint presentation, Videos, Whiteboard, Marker, Reference books & problems given in that	
Basis of Class taken	Concept discussion, clearing the basic ideas, continuation of fluency of the topic, questions and answering, encourage to clear doubts, taking class tests etc.	
Assessment	Class Test/Assignment	
Feedback to	Performance based discussion/ necessary steps taken/ reviewing weak points	
students	& nurturing their concept.	
Revision /	Pending	
Remedial Classes		

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LESSON PLAN

for 2nd, 4th, and 6th Semester Theory Classes

Academic Year: April 2023-July 2023

Jahnabi Saha

Faculty
Department of Human Physiology

Holy Cross College, Agartala

		ession April-July, 2023,Even Semester)	
Name of the Faculty	JahnabiSaha		
Department	Human Physiology		
Paper			
Paper Code	02 (H2A)		
Semester	2 nd (Honours)		
Unit V:	Subtopic	Learning objectives	
Cardio- vascular system	Anatomy of heart, innervations of heart and blood vessels	Students will be able to: (1) Learn about the Anatomy of heart. (2) Know about the Innervations of heart and blood vessels.	
	Junctional tissues of heart, origin and spread of cardiac impulse, conduction defects-arrhythmia,AV block,bundle branch block	Students will be able to: (1) Learn about Junctional tissues of heart. (2) Know about Origin and spread of cardiac impulse. (3) Understand about conduction defects-arrhythmia, AV block, bundle branch block.	
	Cardiac output, measurements, factors controlling cardiac output Heartsounds-significances, murmur causes	Students will be able to: (1) Learn about Cardiac output. (2) Know about Measurements, factors controlling cardiac output. Students will be able to: (1) Learn about different Heartsounds and its significances. (2) Know about Murmur and its causes.	
	Blood pressure:factors affecting blood pressure,regulation of blood pressure with special reference to sino-aortic mechanism. Bradycardia, Tachycardia,Hypertension:primary and secondary	Students will be able to: (1) Learn about Blood pressure, factors affecting blood pressure, regulation of blood pressure with special reference to sino-aortic mechanism. (2) Know about Bradycardia, Tachycardia, Hypertension: primary and secondary.	
	E.C.G. different lead systems, different waves and intervals,	Students will be able to: (1) Learn about E.C.G. (2) Know about Different waves and intervals.	

	their significance	(3) Understand about their significance.	
	Einthoven's	Students will be able to:	
	law, determination of	(1) Learn about Einthoven's law.	
	electrical	(2) Know about Determination of electrical axis and	
	axis,significance	its significance.	
Resources/	PowerPoint presentatio	PowerPoint presentation, Videos, Whiteboard, Marker, Reference books	
Materials	<u> </u>		
Used			
Basis of	Concept discussion, clearing the basic ideas, in-depth discussion with		
Class taken	diagram and example, questions and answering, encourage to clear doubts,		
	taking class tests, group discussion etc.		
Assessment	Class Test/Assignment		
Feedback to	Performance based discussion/ necessary steps taken/ reviewing weak points		
students	& nurturing their concept.		
Revision /	After completion of syllabus revision classes and for slow learner and		
Remedial	advanced learner in every month remedial classes have been taken for better		
Classes	understanding of the students.		

	Lesson Plan (Academic Sess	ion April-July, 2023, Even Semester)
Name of the Faculty	JahnabiSaha	
Department	Human Physiology	
Paper	1 2 2 2 2	and the compatible was the contract the con-
Paper Code	02 (G2)	
Semester	2 nd (General)	
Unit VI:	Subtopic	Learning objectives
Cardio- vascular and Respiratory Systems	Anatomy of human heart, its innervations, course of circulation of blood through it	Students will be able to: (1) Learn about Anatomy of human heart and its innervations. (2) Know about Course of circulation through heart.
	Properties of Cardiac muscle and junctional tissues, origin and spread of cardiac impulse. Cardiac cycle and heart	Students will be able to: (1) Learn about Properties of cardiac muscle. (2) Know about Origin & spread of cardiac impulse. Students will be able to:
	sound, significance of different heart sounds	(1) Learn about Cardiac cycle.(2) Know about different heart sounds & significance of different heart sounds.

	Cardiac output – its	Students will be able to:
	determination and factors	(1) Learn about Cardiac output & its
	controlling cardiac	determination.
47.	output- regulation of	(2) Know about factors controlling cardiac output
	cardiac output	- regulation of cardiac output
	Heart-rate-factors	Students will be able to:
	controlling it,	(1) Learn about Heart-rate, factors controlling it.
	tachycardia, bradycardia	(2) Know about Tachycardia, bradycardia.
	Blood pressure-regulation	Students will be able to:
	of blood pressure, concept	(1) Learn about Blood pressure
	of hypertension	(2) Know about regulation of blood pressure and
		hypertension
	Atherosclerosis, coronary	Students will be able to:
	thrombosis	(1) Learn about Atherosclerosis.
		(2) know about Coronary thrombosis.
	E.C.G different lead	Students will be able to:
	systems, different waves	(1) Learn about E.C.G.
	and intervals, their	(2) Know about Different lead systems, different
	significances	waves and intervals & their significances.
	Einthovens'slaw, determin	Students will be able to:
	ation of electrical axis	(1) Learn about Einthoven's law
		(2) Know about determination of electrical axis
Resources/M	PowerPoint presentation, V	ideos, Whiteboard, Marker, Reference books &
aterials Used	problems given in that	
Basis of	Concept discussion, clearing	g the basic ideas, continuation of fluency of the
Class taken	topic, questions and answering, encourage to clear doubts, taking class tests etc.	
Assessment	Class Test/Assignment	
Feedback to	Performance based discussion/ necessary steps taken/ reviewing weak points &	
students	nurturing their concept.	
Revision /	For better understanding of	the students.
Remedial		
Classes		

Lesson Plan (Academic Session April-July, 2023, Even Semester)		
Name of the	JahnabiSaha	
Faculty	The second of th	
Department	Human Physiology	
Paper	04	
Paper Code	04 (H4A) (Theory)	
Semester	4 th (Honours)	
Unit X:	Subtopic Learning objectives	

	Scope and aplication of ergonomics and work Physiology, Static and Dynamic work, Classification of work	Students will be able to: (1) Learn about Scope and apllication of ergonomics. (2) Know about work Physiology, Static and Dynamic work, Classification of work and exercise.
	and exercise.	
	Energy cost of different physical activities-its determination, Ergometry-working principle of ergometers — bicycle and treadmill.	Students will be able to: (1) Learn about Energy cost of different Physical activities-its determination. (2) Understand insights of Ergometry-working principle of ergometers – bicycle and treadmill.
Ergonomics and Sports Physiology	Importance of measurement of different physiological parameters like heart rate (pulse rate), O ₂ -consumption, blood pressure.	Students will be able to: (1) Learn about Importance of measurement of different physiological parameters like heart rate (pulse rate), O ₂ -consumption, blood pressure.
2 6 2 1	Anthropometry in ergonomics, commomn antropometric measurements used in work place design.	Students will be able to: (1) Learn about Anthropometry in ergonomics. (2) Know about commomn antropometric measurements used in work place design.
S C C C C C C C C C	Muscles in exercise strength, power and endurance of muscles, muscles metabolic sysytem in exercise (energy source during muscular exercise) Nutrients used during exercise.	Students will be able to: (1) Learn about Muscles in exercise strength, power and endurance of muscles. (2) Know about insights of muscles metabolic sysytem in exercise (energy source during muscular exercise) nutrients used during exercise.
	· · · · · · · · · · · · · · · · · ·	Videos, Whiteboard, Marker, Reference books &
	problems given in that	
	Concept discussion, clearing the basic ideas, continuation of fluency of the topic, questions and answering, encourage to clear doubts, taking class tests etc.	
Assessment C	Class Test/Assignment	
	Performance based discussion/ necessary steps taken/ reviewing weak points &	
	nurturing their concept.	
Revision / F Remedial Classes	For better understanding of the students.	

Les	son Plan (Academic Sessi	on April-July, 2023, Even Semester)	
Name of the	JahnabiSaha		
Faculty			
Department	Human Physiology		
Paper			
Paper Code	04 (P4A) (Theory)		
Semester	4 th (General)		
Unit X:	Subtopic	Learning objectives	
	Anatomical organization of male and female reproductive system; Primary and Secondary sex organs Testis-histology,	Students will be able to: (1) Learn about Anatomical organization of male reproductive system (2) Know about Anatomical organization female reproductive system (3) Understand about Primary and Secondary sex organs Students will be able to:	
Endocrinology and Reproductive	Spermatogenesis, Factors affecting Spermatogenesis,Horm ones of testis and theie functions Ovary-Histology,	 (1) Learn about Histology of testis (2) Know aboutSpermatogenesis, factors effecting spermatogenesis (3) Understand about Hormones of testis and their functions Students will be able to: 	
Physiology	Oogenesis, Hormones of Ovary their function and mode of action, Menstrual cycle and its regulation	 (1) Learn about Histology of ovary, Oogenesis— (2) Know aboutHormones of ovary and their functions, mode of actions (3) Understand about Menstrual cycle and its regulation 	
	Concept of Fertilization,Structure of Placenta,Placental hormones and their functions,Development of three germinal layers, Pregnancy Test	Students will be able to: (1) Learn about Fertilization (2) Know about Structure of placenta, placental hormones and their functions (3) Understand about Development of three germinal layers, pregnancy test	
Resources/Mat erials Used	PowerPoint presentation, Videos, Whiteboard, Marker, Reference books & problems given in that		
Basis of Class taken	Concept discussion, clearing the basic ideas, continuation of fluency of the topic, questions and answering, encourage to clear doubts, taking class tests etc.		
Assessment	Class Test/Assignment		
Feedback to	Performance based discussion/ necessary steps taken/ reviewing weak		
students	points & nurturing their c	points & nurturing their concept.	
Revision / Remedial Classes	For better understanding of the students.		

Lesson Plan (Academic Session April-July, 2023, Even Semester)		
Name of the Faculty	JahnabiSaha	
Department	Human Physiology	
Paper		
Paper Code	07 (H7) (Theory)	
Semester	6 th (Honours)	
Unit XVI:	Subtopic	Learning objectives
Microbiology, Biotechnology & Immunology	Bacteria, virus and fungus — their structure and charecteristics bacterial classification	Students will be able to: (1) Learn about Structure and charecteristics of bacteria (2) Know about Structure and charecteristics of virus (3) Understand about Structure and charecteristics of fungus (4) Learn about bacterial classification
	Bacterial growth cycle, and factors (pH, temperature, nutritional requirement) controlling bacterial growth	Students will be able to: (1) Learn about Bacterial growth cycle (2) Know about different factors (pH,temperature,nutritionalrequirment controlling bacterial growth)
	Bacterial genetics – transformation,conjug ation,transduction	Students will be able to: (1) Learn about Bacterial genetics (2) Know about Transformation, conjugation, transduction process
	Bacteriostatic and bactericidal agents and their effects	Students will be able to: (1) Learn about Bacteriostatic agents and their effects (2) Know about Bactericidal agents and their effects
	Brief idea of antibiotics with examples	Students will be able to: (1) Learn about different Antibiotics with example

	Some common diseases caused by bacteria, funaus and virus — Cholera, eczema and influenza — their symptoms and preventive measures	Students will be able to: (1) Learn about some common diseases caused by bacteria, fungus and virus (2) Know about Cholera, eczema and influenza – their symptoms and preventive measures
Unit XVII:	Subtopic	Learning objectives
Moleculer biology & genetics	Protein synthesis: genetic code, codons, reading frame, Nirenberg's experiment, initiation codon, terminator codon, degeneracy of genetic code, Wobble hypothesis. Mechanism of translation: activation of amino acid, formation of initiation complex, Shine- Dalgarno sequence, role of A site and P site.Elongation:role of elongation factors,translocation. Termination:role of terminators and release factors, post transcriptional modification	(1) Learn about Protein synthesis: genetic code, codons, reading frame. (2) Know about Nirenberg's experiment, initiation codon, terminator codon. (3) Understand about degeneracy of genetic code, Wobble hypothesis. (4) Learn about Translation process
Resources/Mat erials Used Basis of Class taken	PowerPoint presentation, Videos, Whiteboard, Marker, Reference books & problems given in that Concept discussion, clearing the basic ideas, continuation of fluency of the topic, questions and answering, encourage to clear doubts, taking class tests etc.	
Assessment Feedback to students Revision / Remedial Classes	Class Test/Assignment Performance based discussion/ necessary steps taken/ reviewing weak points & nurturing their concept. For betterment of the students.	

LESSON-PLAN

for 2nd, 4th, and 6th Semester Theory Classes

Academic Year: April 2023-July 2023

Dr. Ashish Kumar Singha

Assistant Professor Department of Human Physiology

.	Lesson Plan (Academ	ic Session 2022, Even Semester)	
Name of the Faculty	Dr. Ashish Kumar Singha		
Department	Human Physiology		
Paper	02 Theory		
Paper Code	H2A		
Semester	2 nd (Honours)	1	
Unit V:	Subtopic	Learning objectives	
Physiology of Excitable Cell	Mechanism of transduction of stimuli from sensory receptor Reflex arc & reflex action. Properties of reflex action, classification of reflexes. Conditioned and unconditioned	Students will be able to: (1) Know about the sensory receptors (2) Understand the mechanism of transduction of stimuli from sensory receptor. Students will be able to: (1) Learn about reflex, reflex arc and reflex action. (2) Understand the insights of properties of reflex action, classification of reflexes. (3) Know about conditioned and unconditioned reflexes.	
	reflexes. E-C coupling, sliding filament theory. Modern concept of muscle contraction, isotonic and isometric contraction.	Students will be able to: (1) Know about E-C coupling and sliding filament theory. (2) Understand the insights of modern concept of muscle contraction. (3) Know about isotonic and isometric contraction.	
Unit VI:	Subtopic	Learning objectives	
	Courses, peculiarities of coronary circulation.	Students will be able to: Learn about Courses and peculiarities of coronary circulation.	
Cardio- vascular system	Atherosclerosis, CHD, Cardiac failure, Angina pectoris, CVS shock, mitral stenosis,	Students will be able to: (1) Know about Atherosclerosis, CHD, Cardiac failure, Angina pectoris, CVS shock, mitral stenosis, (2) Learn about different disorders related to heart like Angina pectoris, CVS shock, mitral stenosis,.	
	Hemorrhage - effects and compensatory	Students will be able to: Understand the Hemorrhage and its effects and compensatory adjustment.	
Resources/M aterials Used	PowerPoint presentation, Videos, Whiteboard, Marker, Reference books &		
Basis of Class taken	Concept discussion, clearing the basic ideas, continuation of fluency of the topic, questions and answering, encourage to clear doubts, taking class tests etc.		
Assessment	Class Test/Assignment	the design of the second of th	
Feedback to	Performance based discu	ission/ necessary steps taken/ reviewing weak point	
students	& nurturing their concep	ot.	
Revision / Remedial	Pending		
Classes			

2.1	The second secon	nic Session 2022, Even Semester)	
Name of the Faculty			
Department	Human Physiology		
Paper	02 Theory		
Paper Code	G2A		
Semester	2 nd (General)		
Unit VI:	Subtopic	Learning objectives	
Digestion	Anatomy, histology and function of alimentary tract and digestive glands. Composition of different digestive juices, mechanism of secretion. Formation of saliva. HCl, gastric juice, pancreatic juice, bilefunctions.	Students will be able to: (1) Know about Anatomy, histology, and function of alimentary tract. (2) Understand the brief about digestive glands. Students will be able to: (1) Learn about Composition of different digestive juices. (2) Understand insights mechanism of secretion. Formation of saliva. HCl, gastric juice, pancreatic juice, bile-functions.	
Digestion and Metabolism	Digestion and absorption: Carbohydrates, Proteins, Fats.	Students will be able to: (1) Know about Digestion of Carbohydrates, Proteins, Fats. (2) Understand the absorption of Carbohydrates, Proteins, Fats.	
	Movements of	Students will be able to:	
	alimentary tract.	Know about movements of alimentary tract.	
	Absorption of Iron, Vitamin B12, Calcium.	Students will be able to: Learn about Absorption of Iron, Vitamin B12, Calcium.	
	Gastrointestinal	Students will be able to:	
	hormones- gastrin, secretin, CCK: source and function.	Learn about Gastrointestinal hormones- gastrin, secretin, CCK: source and function.	
Resources/ Materials Jsed	PowerPoint presentation, Videos, Whiteboard, Marker, Reference books & problems given in that		
Basis of	Concept discussion clearing	ng the basic ideas, continuation of fluency of the	
lass taken	topic, questions and answering, encourage to clear doubts, taking class tests etc.		
ssessment	Class Test/Assignment		
eedback to	Performance based discussion/ necessary steps taken/ reviewing weak points		
udents	& nurturing their concept.		
evision /	Pending		
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NIA MARIA CAL	Lesson Plan (Acade	mic Session 2022, Even Semester)			
Name of the Faculty	Dr. Ashish Kumar Singha				
Department	Human Physiology				
Paper	04 (Theory)				
Paper Code	114A				
Semester	4 th (Honours)				
Unit IX:	Subtopic	Learning objectives			
Respiratory System and Aviation Physiology	Basic concepts on Asphyxia, Apnoea, Hyperapnoea, Cyanonsis, Periodic breathing, Dyspnoea, Chronic obstructive pulmonary disease – asthma, restrictive pulmonary disease – emphysema.	Students will be able to: (1) Learn about Asphyxia, Apnoea, Hyperapnoea, Cyanonsis, Periodic breathing. (2) Understand about Dyspnoea, Chronic obstructive pulmonary disease – asthma, restrictive pulmonary disease – emphysema.			
Unit X:	Subtopic	Learning objectives			
Ergonomics and Sports Physiology	Physiological changes during exercise- cardiovascular (circulatory) and respiratory changes, steady state, second wind, Fatigue-causes.	Students will be able to: (1) Learn about Physiological changes during exercise- cardiovascular (circulatory) changes. (2) Understand about respiratory changes, steady state, second wind, Fatigue-causes.			
	Metabolic changes during exercise- anaerobic power capacity, maximum aerobic power VO2max – its determination and significance, Recovery of metabolic systems after exercise, O2 debt lactacids and alactacids.	Students will be able to: (1) Learn about Metabolic changes during exercise-anaerobic power capacity. (2) Understand about maximum aerobic power VO2max – its determination and significance. (3) Know about recovery of metabolic systems after exercise, O2 debt lactacids and alactacids.			
	Exercise training: Principles of training, aerobic and anaerobic training, Effects of training on muscles, cardiovascular (circulatory) and respiratory system.	Students will be able to: (1) Learn about Principles of training, aerobic and anaerobic training. (2) Understand about effects of training on muscles, cardiovascular (circulatory) and respiratory system.			

	Nutrition/Diet in	Students will be able to:	
	athletics performance-	(1) Learn about Nutrition/Diet in athletics	
	pregame meal,	performance- pregame meal,	
	Glycogen/carbohydrate	(2) Understand about Glycogen/carbohydrate	
	loading.	loading.	
	Doping in sports;	Students will be able to:	
	ethical issues, harmful	(1) Learn about Doping in sports; ethical issues,	
P. J 7	effects of caffaine,	(2) Understand about harmful effects of caffaine,	
. * 1.	steroids, amphemmine	steroids, amphemmine and cocaine abuse on	
	and cocaine abuse on	health.	
	health.		
Resources/M	PowerPoint presentation, Videos, Whiteboard, Marker, Reference books &		
aterials Used	problems given in that		
Basis of	Concept discussion, clearing the basic ideas, continuation of fluency of the		
Class taken	topic, questions and answ	vering, encourage to clear doubts, taking class tests	
	etc.		
Assessment	Class Test/Assignment		
Feedback to	Performance based discussion/ necessary steps taken/ reviewing weak points		
students	& nurturing their concept.		
Revision /	Going on		
Remedial			
Classes			

Name of the Faculty	Lesson Plan (Academic Session 2022, Even Semester) Dr. Ashish Kumar Singha				
Department	Human Physiology				
Paper	04 (Theory)				
Paper Code	P4A				
Semester	4 th (General)				
Unit IX:		RATIO SERVICE AND ALL PORCE AND A TO A TO A TRANSPORT OF THE PROPERTY OF THE P			
Unit IX.	Subtopic	Learning objectives			
	Cerebellum- Histology, Nuclei, Connections and Functions.	Students will be able to: Learn about Cerebellum			
	Concept of ANS- Classification, Structural and Functional organization.	Students will be able to: Learn about Concept of ANS- Classification, Structural and Functional organization.			
	Basal ganglia structure, connections and functions.	Students will be able to: Learn about Basal ganglia structure, connections and functions.			
Brain and Sensory	Electrical activities of cerebral cortex, Physiological basis of EEG, epilepsy, Types of Sleep and effect of sleep deprivation.	Students will be able to: (1) Learn about Electrical activities of cerebral cortex, (2) Understand about Physiological basis of EEG, epilepsy, (3) Learn about Types of Sleep and effect of sleep deprivation.			
Physiology	CSF- composition, formation, circulation and function.	Students will be able to: Understand insights CSF- composition, formation, circulation and function.			
	Eye: histology of retina, Photochemical changes after exposure of light on retina, accomodation, refractive errors and their corrections, Argyll Robertson pupil, visual pathway.	Students will be able to: (1) Learn about Eye: histology of retina, (2) Understand about Photochemical changes after exposure of light on retina, (3) Learn about accomodation, refractive errors and their corrections, Argyll Robertson pupil, visual pathway.			
	Ear: Structure of external, internal and middle ear. Propagation of sound waves through different parts of ear and their role in hearing, Auditory pathway.	Students will be able to: (1) Learn about Ear: Structure of external, internal and middle ear. (2) Understand about Propagation of sound waves through different parts of ear and their role in hearing, (3) Learn about Auditory pathway.			
Resources/M terials Used	PowerPoint presentation, Videos, Whiteboard, Marker, Reference books & problems given in that				

Basis of Class taken	Concept discussion, clearing the basic ideas, continuation of fluency of the topic, questions and answering, encourage to clear doubts, taking class tests etc.	
Assessment	Class Test/Assignment	
Feedback to	Performance based discussion/ necessary steps taken/ reviewing weak points	
students	& nurturing their concept.	
Revision /	Going on	
Remedial		
Classes		

Name of the	De Aghiel Karage	ic Session 2022, Even Semester)		
Faculty	Dr. Ashish Kumar Singha			
Department	Human Physiology			
Paper	07 Theory			
Paper Code	117			
Semester	6 th (Honours)			
Unit XIV:	Subtopic	Learning objectives		
Sensory Physiology	Vision: anatomy and structure of eyeball, histology of retina, photochemical changes of retina on exposure to light, visual pathway, reflexes of the eye, accommodation, refractive errors and their remedies, visual field – scotopic and photopic vision, visual acuity, perception of depth, positive and negative after image, light and dark adaptation, theories of colour vision, colour blindness, basic idea about glaucoma.	Students will be able to: (1) Learn about anatomy and structure of eyeball, (2) Know about histology of retina, photochemical changes of retina on exposure to light, visual pathway, (3) Learn about reflexes of the eye, accommodation, refractive errors and their remedies, visual field – scotopic and photopic vision, visual acuity, perception of depth, positive and negative after image, (4) Understand about light and dark adaptation, theories of colour vision, colour blindness, basic idea about glaucoma.		
Unit XVII:	Subtopic	Learning objectives		
Molecular biology & genetics	DNA- the genetic material, transformation in pneumococcus (Avery, MacLeod and Mc Carty), Griffith and Hershey- Chase experiments.	Students will be able to: (1) Learn about DNA- the genetic material, transformation in pneumococcus (2) Know about (Avery, MacLeod and Mc Carty), Griffith and Hershey- Chase experiments.		
	Semi conservative model of DNA replication.	Students will be able to: Learn about Semi conservative model of DNA replication.		
	DNA polymerase I and III, DNA ligase, function of different subunits, Okazaki fragments.	Students will be able to: Learn about DNA polymerase I and III, DNA ligase, function of different subunits, Okazaki fragments.		

	difference between prokaryotic and eukaryotic gene, mechanism of gene transcription, template and non-template strand. Promoter sites, RNA polymerase-functions of different components of RNA polymerase. Post transcriptional processing of eukaryotic mRNA.	between prokaryotic and eukaryotic gene, mechanism of gene transcription. (2) Know about template and non-template strand. (3) Learn about Promoter sites, RNA polymerase-functions of different components of RNA polymerase. (4) Learn about Post transcriptional processing of eukaryotic mRNA.	
	Regulation of gene expression, operon concept, lac operon, cistron.	Students will be able to: Learn about Regulation of gene expression, operon concept, lac operon, cistron.	
	Different stages of meiosis, and behavior of chromosome, during meiosis.	Students will be able to: Learn about Different stages of meiosis, and behavior of chromosome, during meiosis.	
Unit XVIII:	Subtopic	Learning objectives	
Research methodology & Epidemiology	Utility of statistics in research, measures of central tendencies (mean, median, mode), standard deviation (SD), standard error of mean (SEM), student's T-test, graphical representation of data frequency, polygon, histogram, normogram, bar diagram, pie diagram. Testing of hypothesis, null hypothesis, test of significance, degree of freedom.	Students will be able to: (1) Learn about Utility of statistics in research, (2) Know about measures of central tendencies (mean, median, mode), standard deviation (SD), standard error of mean (SEM), student's T- test, (3) Learn about graphical representation of data frequency, polygon, histogram, normogram, bar diagram, pie diagram. (4) Understand about Testing of hypothesis, null hypothesis, test of significance, degree of freedom.	
Resources/Mat erials Used Basis of Class	problems given in that Concept discussion, clea	ring the basic ideas, continuation of fluency of the	
taken	topic, questions and answering, encourage to clear doubts, taking class tests etc.		

Feedback to students	Performance based discussion/ necessary steps taken/ reviewing weak points & nutturing their concept.
Revision /	Going on
Remedial	
Classes	

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LESSON PLAN

for 2nd, 4th, and 6th Semester Theory Classes

Academic Year: April-July 2023

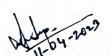
Dr. Sandeep Roy Sarkar

Assistant Professor Department of Human Physiology

Semester	2 nd Semester (General) -Theory		
Paper 02 (G2A)		THE CONTRACT OF THE CONTRACT O	
Unit V:	Sub Topic	Learning objectives	
	Respiratory tree	Students will be able to learn about: 1. Structures of respiratory tree. 2. Anatomy and histology of respiratory system.	
	Mechanism of respiration	Students will be able to learn about: 1. Respiratory muscles. 2. Mechanism of respiration. 3. Role of diaphragm & inter costal muscles.	
Cardio vascular &	Regulation of respiration.	Students will be able to learn about: 1. Neural control of respiration. 2. Chemical control of respiration	
respiratory system.	Transport of respiratory gases.	Students will be able to learn about: 1. Transport of O2 2. Transport of CO2 3. Oxygen dissociation curve	
	Spirometry	Students will be able to learn about: 1. Spirometry. 2. lung volume and capacity.	
	Coronary and pulmonary circulation.	Students will be able to learn about 1. Course and functions of coronary circulation. 2. Course and functions of pulmonary circulation.	
Resources/Ma	aterials Used	Whiteboard, Marker, models, Reference books.	
Basis of Class	s taken	Concept discussion, MCQ related to the topic.	
Assessment		Class Test/Assignment	
Feedback to students		Performance based discussion/ necessary steps taken/ reviewing weak points & nurturing their concept.	
Revision / Remedial Classes		Revision & remedial classes for slow learners.	

Semester	4 th Semester (Honours) -Theory 04 (H4A)		
Paper			
Unit IX:	Sub Topic	Learning objectives	
	High Altitude Physiology.	Students will be able to learn about: 1. Barometric and pO2 at high altitude. 2. Changes in body at high altitude. 3. Motion sickness. 4. Acclimatization to high altitude.	
Respiratory system & aviation physiology.	Aviation Physiology.	Students will be able to learn about: 1. Accelerative & gravitational forces. 2. Positive & negative G. 3. Effect of weightlessness on human body.	
	Space Physiology.	Students will be able to learn about: 1. Effects of weightlessness on CVS. 2. Effects on musculoskeletal system. 3. Effects on blood, immune system. 4. Space motion sickness.	
Resources/Materials Used		Whiteboard, Marker, models, Reference books.	
Basis of Class taken		Concept discussion, MCQ related to the topic.	
Assessment		Class Test/Assignment	
Feedback to students		Performance based discussion/ necessary steps taken/ reviewing weak points & nurturing their concept.	
Revision / Remedial Classes		Revision & remedial classes for slow learners.	

Semester	6th Semester (Honours) -Theory		
Paper	07 (117)		
Unit:	Sub Topic	Learning objectives	
Unit XV:	Audition	Students will be able to learn about: 1. Structure & function of auditory apparatus. 2. Organ of corti.	
Sensory physiology.	Auditory pathway.	Students will be able to learn about: 1. Propagation of sound waves. 2. Perception of sound frequency and loudness, Deafness.	
	Immune system.	Students will be able to learn about: 1. Immunity- innate & acquired. 2. Primary & secondary lymphoid organs. 3. B cells, T cells, macrophages, etc.	
Unit XVI:	MHC, CD	Students will be able to learn about: 1.MHC molecules- structure & function. 2.CD4 & CD8 markers.	
Immunology.	Humoral immunity.	Students will be able to learn about: 1. Structure and types of antibodies. 2. Primary & secondary immune response. 3. Clonal selection theory.	
	Cell mediated immunity.	Students will be able to learn about: 1. Role of CTL and T _H in cell mediated immunity. 2. Classical & alternative pathway of complement system.	
Unit XVII: Molecular	Mutation.	Students will be able to learn about: 1. Spontaneous & induced mutations. 2. Mutagens- chemical & physical. 3. Transition & transversion- chemical inducing.	
biology & genetics.	Chromosomal mutation.	Students will be able to learn about: 1. Structural, inversion, deletion, etc. 2. Chromosomal no euploidy, aneuploidy, etc. 3. Repair of mutation-mismatch, excision.	
Unit XVIII: Research methodology & epidemiology.	Epidemiology	Students will be able to learn about: 1. Definition & recent development. 2. Scope and uses.	
	Disease occurrance	Students will be able to learn about: 1. The concept. 2. Chain of infection. 3. Measuring disease frequency.	
Resources/Mat	erials Used	Whiteboard, Marker, models, Reference books.	
Basis of Class t	aken	Concept discussion, MCQ related to the topic.	
Assessment		Class Test/Assignment	
Feedback to students		Performance based discussion/ necessary steps taken/ reviewing weak points & nurturing their concept.	
Revision / Rem	edial Classes	Revision & remedial classes for slow learners.	



LESSON PLAN

for 2nd, 4th, and 6th Semester Theory Classes

Academic Year: September 2022-July 2023

Dr. Susmita Saha

Assistant Professor
Department of Human Physiology

	Lesson P	lan (Even Semester, 2023)
aper Code 02 (H2A)		
Semester	2 nd (Honours)	
Unit V:	Subtopic	Learning objectives
	Nerve cell and fibres.	Students will be able to:
		(1) Learn about the Structure of nerve cell and fibres.
		(2) Learn about Learn about the properties, and classification
		of nerve cell and fibres.
	Degeneration and	Students will be able to:
	regeneration of nerve	(1) Understand the Degeneration of nerve fibres.
	fibres.	(2) Learn about regeneration of nerve fibres.
	Properties of nerve	Students will be able to:
	fibres, generator	(1) Learn the properties of nerve fibres.
	potential,	(2) Modern concept of generation of resting potential
	Action potential.	(3) Modern concept of Generator potential, Students will be able to:
	Propagation of nerve	(1) Learn about basic ideas Action potential.
	impulse.	(2) Know about process of Propagation of nerve impulse.
	Synapse.	Students will be able to:
Physiology of	Бупарос.	(1) Learn about the Structure of synaptic junction.
Excitable Cell	1 3	(2) Understand about the Properties of synapse and
	A TOTAL CONTRACTOR	Classification.
	Transmission of nerve	Students will be able to:
	impulse.	(1) Learn about the Transmission of nerve impulse across the
		synaptic junction.
	The state of the s	(2) Understand about the macromolecular process of nerve
	1, 146	impulse transmission.
	Neuro-muscular	Students will be able to:
	junction.	(1) Learn about the structure of Neuro-muscular junction.
		(2) Understand about the nerve impulse propagation across
	12 12 12 12 12 12	the neuro-muscular junction.
	Propagation of nerve	Students will be able to:
	impulse across the	(1) Learn about the Propagation of nerve impulse across the
	neuro-muscular	neuro-muscular junction.
	junction.	(2) Understand about the macromolecular process of nerve
Resources/Materi	Pawar Paint presentation	impulse propagation across the neuro-muscular junction. n, Whiteboard, Marker, Reference books.
als Used	1 ower our presentation	ii, willicoodiu, ividikei, iveleleliee books.
Basis of Class	Concept discussion, clearing the basic ideas, questions and answering, encourage to	
taken	clear doubts, taking class tests etc.	
Assessment	Class Test/Assignment	
Feedback to	Performance based discussion/ necessary steps taken/ reviewing weak points &	
students	nurturing their concept.	
Revision /	For better understanding of the students.	
Remedial Classes	3.1.	

Paper Code	02 (G2)		
Semester	2 nd (General)		
Unit VI:	Subtopic	Learning objectives	
	Enzymatic steps in Metabolic pathways.	Students will be able to: (1) Learn about basic ideas of Enzymatic steps in glycolysis, TCA cycle, Cori cycle and their significance. (2) Know about HMP pathway and its significance.	
	Glycogenesis, glycogenolysis, gluconeogenesis.	Students will be able to: (1) Learn about the Glycogenesis, glycogenolysis, gluconeogenesis. (2) Understand about steps of Glycogenesis, glycogenolysis, gluconeogenesis.	
Digestion and Metabolism	Energy during glycolysis and TCA cycle, brief description of E.T.C, oxidative phosphorylation.	Students will be able to: (1) Learn about the Energy during glycolysis and TCA cycle. (2) Understand about the description and significance of E.T.C, oxidative phosphorylation	
	Lipid oxidation	Students will be able to: (1) Learn about Beta oxidation: steps, energy change. ketone bodies, prostaglandins-significance.	
	Deamination and transamination of amino acids. Urea formation.	Students will be able to: (1) Learn about the process of Deamination and transamination of amino acids. (2) Learn about mechanism of Urea formation.	
Resources/Materi als Used	PowerPoint presentation, Whiteboard, Marker, Reference books.		
Basis of Class taken	Concept discussion, clearing the basic ideas, questions and answering, encourage to clear doubts, taking class tests etc.		
Assessment	Class Test/Assignment		
Feedback to students	Performance based discussion/ necessary steps taken/ reviewing weak points & nurturing their concept.		
Revision / Remedial Classes	For better understanding of the students.		

Paper Code	04 (H4A) (Theory)	n (Even Semester, 2023)
Semester	4 th (Honours)	
Unit IX;	Subtopic	Learning objectives
	Respiratory tract	Students will be able to: (1) Learn about Anatomy and histology of respiratory tract and organs. (2) Learn about Muscles of respiration.
	Mechanisms of breathing	Students will be able to: (1) Learn about Mechanism of breathing. (2) Understand insights of, respiratory pressure, lung compliance, surfactant, airway resistance.
Pasniratory	Pulmonary function test	Students will be able to: (1) Learn about Importance of lung volume and capacities. (2) Learn about Importance of Spirometry: measurement of Vital capacity, FVC, Timed Vital capacity, FEV1, MVV or MBC, PEFR with their significance
Respiratory System and Aviation Physiology	Ppulmonary circulation.	Students will be able to: (1) Know about Course, peculiarities of pulmonary circulation. (2) Learn about control of pulmonary circulation.
	Transport of O ₂ and CO ₂ , O ₂ dissociation curve- factors affecting and significance.	Students will be able to: (1) Learn about Transport of O ₂ and CO ₂ . (2) Understand insights of muscles metabolic sysytem in exercise (energy source during muscular exercise) Nutrients used during exercise.
	Regulation of Respiration – neural and chemical	Students will be able to: (1) Learn about neural regulation of Respiration. (2) Understand insights of chemical regulation of Respiration.
	Hypoxia-types, causes and effects	Students will be able to: (1) Learn about Hypoxia-types. (2) Understand insights of causes and effects of hypoxia.
Resources/Materi als Used	PowerPoint presentation, Whiteboard, Marker, Reference books.	
Basis of Class taken	Concept discussion, clearing the basic ideas, questions and answering, encourage to clear doubts, taking class tests etc.	
Assessment	Class Test/Assignment	
Feedback to students	Performance based discussion/ necessary steps taken/ reviewing weak points & nurturing their concept.	
Revision / Remedial Classes	For better understanding of the students.	

Paper Code	04 (P4A) (Theory)		
Semester	4 th (General)		
	Subtopic	Learning objectives	
	Endocrine gland, Signal Transduction and Second messengers.	Students will be able to: (1) Learn about Anatomical organization of endocrine glands in the body, Chemical classification of hormones. (2) Learn about, Mode of action of hormones, Signal Transduction and Second messengers.	
	Pituitary gland.	Students will be able to: (1) Learn about Pituitary gland: histology, function of the anterior and posterior pituitary glands, their hormones. (2) Understand the Symptoms of hypo and hyper function of TSH and ACTH.	
Unit X: Endocrinology and Reproductive Physiology	Thyroid, Parathyroid and Adrenal gland.	Students will be able to: (1) Learn about histology of Thyroid, Parathyroid and Adrenal gland. (2) Understand the chemical nature, mode of action, physiological function of Thyroid, Parathyroid and Adrenal gland.	
	Endocrine Pancreas.	Students will be able to: (1) Learn about Histology of Islets of Langerhans. (2) Understand the Chemistry and Function of insulin and glucagon; Diabetes mellitus- type I and Type II diabetes; their cause, Blood sugar regulation, role of different hormones.	
	Regulation of	(4) Understand the Glucose tolerance and their importance,Mode of action of insulin, role of GLUT transporters.Students will be able to:	
	hormones feedback mechanism.	(1) Learn about Regulation of hormones feedback mechanism.	
Unit IX: Brain and Sensory Physiology	Cerebrum	Students will be able to: (1) Learn about Histology, area and centers in the central cortex, method of localization and function. (2) Understand the basics of Thalamus, Hypothalamus, connections and functions.	
Resources/Materia Is Used	PowerPoint presentation, Whiteboard, Marker, Reference books.		
Basis of Class taken	Concept discussion, clearing the basic ideas, questions and answering, encourage to clear doubts, taking class tests etc.		
Assessment Feedback to students	Class Test/Assignment Performance based discussion/ necessary steps taken/ reviewing weak points & nurturing their concept.		
Revision / Remedial Classes	For better understanding of the students.		

		an (Even Semester, 2023)
Paper Code	07 (H7) (Theory)	
Semester	6 th (Honours)	Complete Warmer Company Company of the Section of t
	Subtopic	Learning objectives
Unit XV: Sensory Physiology	Olfaction and gestation:	Students will be able to: (1) Learn about Structure of taste buds, mechanism of taste sensation. (2) Know about neural pathways for taste and smell sensation with centres involved. (3) Learn about Taste and smell adaption. Olfactometer, electroolfactogram
	Recombinant DNA technology	Students will be able to: (1) Learn about Recombinant DNA technology. (2) Know about DNA cloning, cloning vector, restriction endonuclease. (3) Learn about cloning of DNA into cloning vectors.
Unit XVI:	DNA Gel electrophoresis.	Students will be able to: Learn about basic principle, procedure, and applications of
Microbiology, Biotechnology & Immunology	Southern blot and western blot.	Students will be able to: Learn about basic principle and applications of Southern blot and western blot.
	Colony hybridization.	Students will be able to: Learn about basic principle, procedure, and applications of Colony hybridization.
	Basic concepts of PCR.	Students will be able to: (1) Learn about Basic concepts, procedure, and applications of PCR.
Unit XVII: Molecular biology & genetics	Mendelian genetics	Students will be able to: (1) Learn Mendel's experiments (2) monohybrid crosses (3) principles of dominance (4) dihybrid crosses (5) incomplete dominance, Co-dominance.
	Human genetics	Students will be able to: (1) importance, pedigree analysis (2) karyotyping, human genetic disorders (3) gene incompatibility, (ABO blood group) (4) autosomal (phenyl ketonuria), albinism (5) sex linked (haemophilia, red green colour blindness) diseases
Unit XVIII:	Research Methodology and significance.	(1) Learn about Meaning of research.(2) Know about objectives and significance of research.(3) Learn about research ethics, types of research.

Research methodology & Epidemiology	Research Problem Design, data, types (1) Learn about Scientific methods in research. (2) Know about selecting the research problem sample design and its different steps of sampling procedure. (3) Learn about characteristics of a good sample design, type of data.	
Resources/Materi als Used	PowerPoint presentation, Whiteboard, Marker, Reference books.	
Basis of Class	Concept discussion, clearing the basic ideas, questions and answering, encourage to	
taken	clear doubts, taking class tests etc.	
Assessment	Class Test/Assignment	
Feedback to	Performance based discussion/ necessary steps taken/ reviewing weak points &	
students	nurturing their concept.	
Revision /	For better understanding of the students.	
Remedial Classes	(B 스트, B O. B O. B O. B O. B B. B B. B B. B B. B B. B	

10/04/2023

	Lesson Plan	(Academic Session 2022-23, Odd Semester)	
Name of the Faculty	Dr. Anamika Bhaumik.		
Department	Zoology		
Semester		1 st	
Course		Zoology (Major)	
Paper Code		I	
Unit: III	Topic	Learning objectives	
Vertebrata	Cyclostomata To Mammals	The study provides an intake knowledge about the structural, functional and physiological significance of the various types of animals belonging the group.	
Semester	I		
Course		Zoology (General)	
Paper Code			
Unit: IV	Topic Learning objectives		
Chordata-2	Amphibia to Mammals.	Knowledge as acquired on physiological systems of animals belonging to class amphibia Reptilia, Aves and mammals.	
Semester	3 rd		
Course		Zoology (Major)	
Paper Code	3A		
Unit: I	Topic Learning objectives		
Genetics	DNA as a genetic material, Recombinant DNA and Sex determination	Study on Genetics provides information on heredity, recombinant DNA technology, Sex determination and genetic disorder.	

Semester	3 rd		
Course	Zoology (General)		
Paper	3B (Practical) Experiments related to theory paper are taken up.		
Semester		5 th	
Course		Zoology (Major)	
Paper Code		5A	
Unit: II	Topic Learning objectives		
Animal Physiology	Physiology of digestion of Mammals.	Digestion, Respiration, Excretion, Osmoregulation, & Nerve impulse transmission helps to understand the physiological phenomena occurring in our system.	
Paper	5B (Practical) Experiments related to theory paper are taken up.		
Semester	5 th		
Course	Zoology (Minor)		
Paper Code	5A		
Unit: II	Topic Learning objectives		
Microbiolog y & Immunology	Types of Microbes & their important features,	Body's defence mechanism against various pathogens is understood by studying types of microbes, disease causing microbes, immune system, immune responses by antibodies.	
Paper	5 B (Practical) Experiments related to theory paper are taken up.		

Resources/	Whiteboard, Marker, Projector, Reference books & previous year question
Materials	papers
Used	
Basis of	Detailed discussion on the topics and citing examples related to different
Class taken	topics with an aim to develop fair concept among the students.
Assessment	Class Test/Assignment/Internal exams
Feedback to students	Performance based discussion/ necessary steps taken/ reviewing weak points & nurturing their concept.
Revision / Remedial Classes	Revision will be done after completion of syllabus and remedial classes will be taken for the slow learners.

Lesson Plan (Academic Session 2022-23, Even Semester)			
Name of the Faculty	Dr. Anamika Bhaumik		
Department	Zoology		
Semester	2 nd		
Course	Zoology (Major)		
Paper	II A		
Unit II:	Topic Learning objectives		
Applied Zoology	Sericulture, Vermiculture, Pollinators and Pest	The study provides in-depth knowledge about various aspects of Sericulture, Vermiculture, Pollinators and Pest.	

Course	Zoology (General)			
Paper	II A			
Unit II	Topic Learning objectives			
Biochemistry	Classification of Carbohydrate, Protein, Lipid; Nucleic Acid, Concept of pH & Buffer; Enzymes	Concept of Biomolecule. Detailed discussion and explanation about classification, structure and function of carbohydrate, protein, lipid and Nucleic Acid. The composition, uses and biological significance of pH and buffer. The general properties, mode of action, significance of enzymes.		
Paper	II B (Practical) Experiments related to theory paper are taken up.			

Semester	4 th		
Course	Zoology (Major)		
Paper	4A		
Unit: II	Topic	Learning objectives	
Tools and Techniques in Biology	Principles and applications of pH meter, Colorimeter, Centrifuges, Chromatography, Electrophoresis.	The study provides in depth knowledge regarding the different tools that are used in Biology.	
Paper	4B (Practical) Experiments related to theory paper are taken up.		

Semester	4 th	
Course	Zoology (General)	
Paper	4A	
Unit I	Topic	Learning objectives
Applied Zoology II	Vermiculture and Prawn culture	The study provides in-depth knowledge about various aspects of Vermiculture and Prawn culture.

Semester	$6^{ m th}$	
Course	Zoology (Major)	
Paper	6A	
Unit II	Topic	Learning objectives
Biochemistry	Concept of pH & Buffer; Structure and Function of Carbohydrate, Protein, Lipid; Nucleic Acid, Enzyme & its Mechanism of action, Glycolysis, TCA cycle	Concept of Biomolecule. Detailed discussion and explanation about classification, structure and function of Carbohydrate, Protein, Lipid and Nucleic Acid. The composition, uses and biological significance of pH and buffer. The general properties, mode of action, significance of enzymes. Discussion about Glycolysis, TCA
	_	

Resources/	Whiteboard, Blackboard, Chalk, Duster, Marker, Reference books & previous
Materials	year question papers
Used	
Basis of	Detailed discussion on the topics and citing examples related to different
Class taken	topics with an aim to develop fair concept among the students.
Assessment	Class Test/Assignment/Internal exams
Feedback to	Performance based discussion/ necessary steps taken/ reviewing weak points
students	& nurturing their concept.
Revision /	Revision was done after completion of the syllabus and remedial classes have
Remedial	been taken for the slow learners.
Classes	

Lesson Plan (Academic Session 2022-23, Odd Semester)			
Name of the Faculty	Dr. Parichita Ray Choudhury		
Department	Zoology		
Semester		1 st	
Course	Zoology (Major)		
Paper	I		
Unit IV:	Торіс	Learning objectives	
Taxonomy & Classification	Taxonomy, Definitions and Concepts, Zoological Classification, Species Concept	The study provides intake knowledge about Zoological Taxonomy, Classification, Species Concept, and characteristics of phyla	

Course	Zoology (General)	
Paper	I	
Unit IV	Topic	Learning objectives
Chordata – 2 (Amphibia to Mammal)	Digestive, Respiratory, Circulatory, Nervous, Exoskeletal System	Knowledge is acquired on different systems and the physiology of action of those in connection with Amphibia to mammal

Semester	3 rd	
Course	Zoology (Major)	
Paper	3A	
Unit: II	Topic	Learning objectives
Ecology	Basic concepts of ecology, Population ecology, Community Ecology, Community Succession	Study on Ecology provides the information about the basic concepts, Population and Community Ecology, Community Succession and ecosystem function
Paper	3B (Practical) Experiments related to theory paper are taken up.	

Semester	3rd	
Course	Zoology (General)	
Paper	3A	
Unit I	Topic	Learning objectives
Taxonomy &	Basic Taxonomy,	Objective is to know about the basics of
Classification,	Hierarchy, Species	taxonomy, taxonomic hierarchy, and Species.
Evolution &	Concept, Classification,	The objective covers Darwin's theory of
Adaptation	Theories of Evolution,	Evolution, how natural selection takes place,
_	Selection, Isolation,	how species remains distinctive in nature also.
	Adaptation, Coloration,	-
	Mimicry	
Paper	3B (Practical) Experiments related to theory paper are taken up.	

Semester	5 th	
Course	Zoology (Major)	
Paper	5A	
Unit IV	Topic	Learning objectives
Biostatistics	Concept of Central Tendency, Probability and Distribution, Representation of Statistical Data	About the basics of Data collection, how to calculate Mean, Median and Mode, calculation and application of SD, SE, variance, and T-test. How to calculate and apply Correlation Coefficient and Chi square Test during data treatment. Usefulness of Diagrammatic representation of statistical data
Paper	5B (Practical) Experiments related to theory paper are taken up.	

Resources/ Materials Used	Whiteboard, Marker, Projector, Reference books & previous year question papers
Basis of Class taken	Detailed discussion on the topics and citing examples related to different topics with an aim to develop fair concept among the students.
Assessment	Class Test/Assignment/Internal exams
Feedback to students	Performance based discussion/ necessary steps taken/ reviewing weak points & nurturing their concept.
Revision / Remedial Classes	Revision will be done after completion of syllabus and remedial classes will be taken for the slow learners.

Lesson Plan (Academic Session 2022-23, Even Semester)			
Name of the Faculty	Dr. Parichita Ray Choudhury		
Department		Zoology	
Semester		$2^{ m nd}$	
Course	Zoology (Major)		
Paper	IIA		
Unit I:	Topic	Learning objectives	
Histology & Functions	Skin, liver, kidney, spleen in mammals	The study will provide inputs on the histological structure of different important organs in mammals along with their functions.	
Biology of Development	Gametogenesis, ultra structure of sperm and ovum, Fertilization, Egg types, Cleavage & fate maps, Gastrulation in chick embryo, Extra embryonic membrane, and Placenta	The study provides in-depth knowledge about Gametogenesis, Fertilization, Gastrulation, Extra embryonic membrane and Placenta	
Paper	2B Major (Practical) Experiments related to theory paper are taken up.		

Course	Zoology (General)	
Paper	IIA	
Unit I	Topic	Learning objectives
Histology & Functions	Skin, liver, kidney, Pancreas, Thyroid, Testis & Ovary in mammals	The study will provide inputs on the histological structure of different important organs in mammals along with their functions.
Biology of Development	Gametogenesis, ultra structure of sperm and ovum, Fertilization, Egg types, Role of Yolk in Cleavage & Blastulation in Amphibians, fate maps, Gastrulation in frog, Structure of extra embryonic membrane and function in Chick embryo, Placenta, types, formation in rabbit and functio	The study provides in-depth knowledge about Gametogenesis, Fertilization, Gastrulation, Extra embryonic membrane and Placenta
Paper	2B (Practical) Experiments related to theory paper are taken up.	

Semester	4 th	
Course	Zoology (Major)	
Paper	4A	
Unit: I	Topic	Learning objectives
Tools and Techniques in Biology	Principles and applications of i. Light Microscope (Bright-field & Phase Contrast Microscope, Electron Microscope (SEM & TEM)	By studying these topics, gaining of detailed understanding of different tools and techniques that are used in Biology would be achieved.
Micro- techniques	Fixation, Dehydration, Embedding, Block- making, Microtomy, Principles of staining, acid and basic stain, Single & Double Stainning methods	By studying the basics of micro techniques, practical knowledge of preparing permanent histological slides could be gained
Paper	4B (Practical) Experiments related to theory paper are taken up.	

Semester	4 th	
Course	Zoology (General)	
Paper	4A	
Unit II	Topic	Learning objectives
Molecular Biology	Mode of Inheritance, DNA as Genetic Material- experimental proof, Replication, Transcription & Translation in Prokaryoted	Detailed studies about the composition, structure, and interactions of cellular molecules – such as nucleic acids and proteins – that carry out the biological processes essential for the cell's functions and maintenance.
Paper	4B (Practical) Experiments related to theory paper are taken up.	

Semester	6 th	
Course	Zoology (Major)	
Paper	6A	
Unit I	Topic	Learning objectives
Evolutionary Biology	Origin of Life: Experimental evidence in favour of abiotic synthesis of basic biomolecules, origin of protocell or coacervate. Basic ideas on geologic time table, Neo-Darwinism, Hardy Weinberg Principle: principles & factors, Types of Natural Selection, Isolating mechanism & its importance, Different modes of speciation	Concept of origin of life, Detailed discussion of the basic ideas of Geologic time table and Neo Darwinism. Understanding the Principle of Hardy Weinberg & the factors affecting it, To know in details about the different types of natural selections with examples, the concept of isolating mechanisms and its importance and study of the basic concepts of the modes of speciation in order to gain knowledge ob the different aspects of evolution.
Paper	Experiments	5B (Practical) related to theory paper are taken up.

Resources/	Whiteboard, Marker, Projector, Reference books & previous year question
Materials	papers
Used	
Basis of	Detailed discussion on the topics and citing examples related to different
Class taken	topics with an aim to develop fair concept among the students.
Assessment	Class Test/Assignment/Internal exams
Feedback to students	Performance based discussion/ necessary steps taken/ reviewing weak points & nurturing their concept.
Revision /	Revision will be done after completion of syllabus and remedial classes will
Remedial	be taken for the slow learners.
Classes	

Lesson Plan (Academic Session 2022-23, Even Semester)			
Name of the Faculty	Dr. Rumki Nath Sen		
Department	Zoo	ology	
Semester	2	ond	
Course	Zoology	(Major)	
Paper	2A (T	Theory)	
Unit I:	Topic	Learning objectives	
Cell Biology, Histology and Developmental Biology	Concept of prokaryotic and eukaryotic cells, Ultrastructure and function of plasmamembrane, Cell organelles, Chromatin: organization of euchromatin and heterochromatin, Chromosome morphology, classification, nucleosome model of chromosome ultrastrcture, Chromatin:Special types of chromosome: polytene and lampbrush chromosome, Cell cycle: Phases and regulation, Mitosis, Meiosis, Synaptonemal complex, Cancer, Histology.	The study provides intake knowledge about the structure and function of different cell organelles, organization of chromatin, morphology and types of chromosomes, idea about the cell cycle and its regulation, mitotic and meiotic cell division, Cancer: its causes and types, outline classification of animal tissue.	
Paper	1	ractical) NA	
Course		(General)	
Paper	2A (Theory)		
Unit 1	Topic Learning objectives		
Cell Biology, Histology and Developmental Biology	Concept of prokaryotic and eukaryotic cells, ultra structure and function of plasma membrane, Cell organelles, Chromosome morphology, classification, nucleosome model of chromosome ultrastreture, Cell cycle: Mitosis and Meiosis, Histology.	The study provides intake knowledge about the structure and function of different cell organelles, morphology and types of chromosomes, idea about the cell cycle and its regulation, mitotic and meiotic cell division, Outline classification of animal tissue.	

Paper	2B (Practical) NA		
Course	Zoology (Major)		
Paper	4A (Theory)		
Unit:I	Topic		Learning objectives
Microbiology, Parasitology and Immunology	Microbes: microbial disease cycle, pathogenecity, clinical fe and control measures of <i>Plasmod Wuchereria bancrofti, Ancylos duodenale</i> , host-parasite interacti reference to roundworm disease.	eatures lium sp, stoma ion with	Objective is to make the students learn about the microbial diseases, life cycle, pathogenecity, clinical features and control measures of <i>Plasmodium vivax</i> , <i>Plasmodium falciperum</i> , <i>Wuchereria bancrofti</i> , <i>Ancylostoma duodenale</i> , hostparasite interaction with reference to roundworm diseases,
Paper	1 -	ory pape	actical) or are taken up which enables better g of the topic.
Course	Zoology (General)		
Paper	4A (Theory)		
Unit:II	Topic Learning objectives		Learning objectives
Genetics and Molecular Biology	Mendelian genetics, linkage, recombination, Cytoplasmic inheritance, Sex determination and Sex chromatin, Congenital chromosomal abnormalities.		Objective is to make the students learn about Mendelian principles of segregation and independent assortment, Linkage, Recombination, cytoplasmic inheritance, Concept of alleles and multiple alleles, Sex determination in drosophila and man, Sex chromatin or Barr body and its significance, Congenital chromosomal abnormalities,
Paper	4B (Practical)		
1 upci	Experiments related to theory paper are taken up which enables better understanding of the topic.		
Semester	6 th		
Course	Zoology (Major)		
Paper	6A		
Unit IV	Topic Learning objectives		

Molecular biology and genetic engineering	DNA replication and protein synthesis in prokaryotes, Benzer's rII locus, complementation and non-complementation, cistron, recon and muton, Lac operon, Genetic basis of cancer, Recombinant DNA technology and its application.	To give a detailed idea about DNA replication, Transcription and translation in prokaryotes, Benzer's rII locus, idea of complementation and non- complementation, concept of cistron, recon and muton, genetic regulation in prokaryotes: Lac operon, Genetic basis of cancer: Proto-oncogene and viral oncogene, functional importance of p53 tumor suppressor gene, oncogenes in human cancer, recombinant DNA technology and its application: cloning vectors, types of endonucleases and their roles, construction of chimeric DNA, copying m-RNA into cDNA clones with desired DNA, Potential benefits and hazards of
		genetic engineering.
Paper	6B (Practical) Experiments related to theory paper are taken up which enables better understanding of the topic.	

Resources/ Materials Used	Whiteboard, Marker, Projector, Reference books & previous year question papers
Basis of Class taken	Detailed discussion on the topics and citing examples related to different topics with the aim to develop fair concept about the topic among the students.
Assessment	Class Test/Assignment/Internal exams/PowerPoint presentation
Feedback to students	Performance based discussion/ necessary steps taken/ reviewing weak points & nurturing their concept.
Revision / Remedial Classes	Revision will be done after completion of syllabus and remedial classes will be taken for the slow learners.

	Lesson Plan (Academic	Session 2022-23, Odd Semester)
Name of the Faculty	Dr. Rumki Nath Sen	
Department		Zoology
Semester		1 st
Course		Zoology (Major)
Paper		I
Unit I:	Topic	Learning objectives
Invertebrata-I	Protozoa, Porifera, Cnidaria, Helminthes, Annelida	The study provides intake knowledge about the structural, functional and physiological significance of the various types of animals belonging to these groups.
Course		Zoology (General)
Paper		I
Unit 1	Торіс	Learning objectives
Invertebrata-I	Paramecium, Sycon, Obelia, Fasciola	Knowledge is acquired on structure, locomotion, different physiological system and life cycle of animals belonging to the group.
Semester	3 rd	
Course	Zoology (Major)	
Paper	3A	

Unit:I	Topic	Learning objectives
Genetics	DNA as genetic material, alleles, multiple alleles, linkage, crossing over and recombination, mode of inheritance, mutation.	Study on Genetics provides information on DNA as genetic material, genes, alleles, multiple alleles, heredity, linkage and recombination, mode of inheritance and mutation.
Paper	Experiments	3B (Practical) related to theory paper are taken up.
Semester		5 th
Course		Zoology (Major)
Paper	5A	
Unit III	Topic	Learning objectives
Biodiversity and Conservation	Concept and types of biodiversity, hotspots of biodiversity, IUCN categories, Wildlife conservation, Protected areas, Wildlife protection acts.	Objective is to know about the types and hierarchical levels of biodiversity, biodiversity as resource, hotspots of biodiversity, strategies of conservation, IUCN categories, Wildlife conservation with reference to Rhino and Tiger, different types of protected areas and wildlife protection acts.
Course	Zoology (General)	
Paper	5A (Theory)	
Unit I	Topic	Learning objectives
Parasitology and Medical Entomology	Life cycle, pathogenicity, clinical features and control measures of <i>Plasmodium vivax</i> , <i>Entamoeba histolytica</i> and <i>Ascaris lumbricoides</i> Parasitic adaptations and common insect vectors.	Objective is to study about the detailed life cycle, pathogenicity, clinical features and control measures of <i>Plasmodium vivax</i> , <i>Entamoeba histolytica</i> and <i>Ascaris lumbricoides</i> Parasitic adaptations in helminthes and common insect vectors related to public health: their features and the diseases caused by them.
Paper	5 B (Practical) Experiments related to theory paper are taken up.	

Resources/ Materials Used	Whiteboard, Marker, Projector, Reference books & previous year question papers
Basis of Class taken	Detailed discussion on the topics and citing examples related to different topics with the aim to develop fair concept about the topic among the students.
Assessment	Class Test/Assignment/Internal exams/PowerPoint presentation
Feedback to students	Performance based discussion/ necessary steps taken/ reviewing weak points & nurturing their concept.
Revision / Remedial Classes	Revision will be done after completion of syllabus and remedial classes will be taken for the slow learners.

	Lesson Plan (Academic S	Session 2022-23, Odd Semester)
Name of the Faculty	Dr. Subhalaxmi Bhattacharjee	
Department		Zoology
Semester		1 st
Course		Zoology (Major)
Paper		I
Unit II	Topic	Learning objectives
Invertebrate 2	Arthropoda, Mollusca, Echinoderm, Notochord, Hemichordata, Protochordata	The study provides intake knowledge about the structural, functional and physiological significance of the various types of animals belonging to these groups.
Course		Zoology (General)
Paper	I	
Unit II	Topic	Learning objectives
Invertebrata-II	Metaphire, Pila, Periplaneta,	Knowledge is acquired on structure, locomotion, different physiological system and life cycle of the afore mentioned animals.
Semester	3 rd	
Course	Zoology (Major)	
Paper	3A	

Unit:I	Topic	Learning objectives
Ecology	Community studies, Community succession, Behavioral ecology, Environmental pollution, Different conservative measures.	In detail study explaining the concept, classification and examples of the said topics.
Paper	Experiments	3B (Practical) related to theory paper are taken up.
Semester		5 th
Course	Zoology (Major)	
Paper	5A	
Unit II	Topic	Learning objectives
Adaptation, Zoogeography Ethology	Adaptation, Colouration, Mimicry, Animal distribution, Zoogeographic realms, Ethology	In detail study explaining the concept, classification and examples of the said topics.
Course		Zoology (General)
Paper	5A (Theory)	
Unit I	Topic	Learning objectives
Parasitology and Medical Entomology	Life cycle, pathogenicity, clinical features and control measures of <i>Plasmodium vivax</i> , <i>Entamoeba histolytica</i> and <i>Ascaris lumbricoides</i> Parasitic adaptations and common insect vectors.	Objective is to study about the detailed life cycle, pathogenicity, clinical features and control measures of <i>Plasmodium vivax</i> , <i>Entamoeba histolytica</i> and <i>Ascaris lumbricoides</i> Parasitic adaptations in helminthes and common insect vectors related to public health: their features and the diseases caused by them.
Paper	5 B (Practical) Experiments related to theory paper are taken up.	

Resources/	Whiteheard Marker Projector Deference healts & marriage year question
Resources/	Whiteboard, Marker, Projector, Reference books & previous year question

Materials	papers
Used	
Basis of	Detailed discussion on the topics and citing examples related to different
Class taken	topics with the aim to develop fair concept about the topic among the students.
Assessment	Class Test/Assignment/Internal exams/PowerPoint presentation
Feedback to students	Performance based discussion/ necessary steps taken/ reviewing weak points & nurturing their concept.
Revision /	Revision will be done after completion of syllabus and remedial classes will
Remedial Classes	be taken for the slow learners.

Lesson Plan (w.e.f April 2023, Even Semester)				
Name of the Faculty	Dr. Subhalaxmi Bhattacharjee			
Department	Zoology			
Semester	2 nd			
Course	Zoology (Major)			
Paper		2A		
Unit I	Topic	Learning objectives		
Cell Biology, Histology and Developmental Biology	Gametogenesis, Ultrastructure of sperm and ovum.	The study provides knowledge about the basics of embryology and gamete biology. It combines dynamic physiological approach with descriptive approach.		
Unit II	Торіс	Learning objectives		
Applied Zoology	Apiculture, Poultry, Prawn Culture, Pisciculture	The study provides scope to learn about basic procedure and methodology involved in all these cultures.		

	2B (Practical)				
	1.Identification with reasons:				
	Group A): Paramoecium, Sycon, Obelia, Taenia, Ascaris, leech, Earthworm, Horse shoe crab, Macrobrachium rosenbergii, Pila, Starfish, Tryporhiza, Leptocorhiza.				
	Group B): <i>Branchiostom</i> a, <i>Ascidia</i> , <i>Petromyzon</i> , <i>Scoliodon</i> , Sea horse, Icthyophis, Axolotl larva, <i>Naja</i> , Pigeon, Chiroptera.				
Paper	2. Identification of Mammalian T.S of skin, spleen, small intestine, liver, pancreas, kidney, thyroid, testes, ovary.				
	3. Identification of Chick embryo: 24hr, 48hr, 72hr.				
	4. Preparation of squamous epithelium and blood film.				
Course		Zoology (General)			
Paper		2A			
Unit I	Topic	Learning objectives			
Cell Biology, Histology and Developmental Biology	Gametogenesis, Ultrastructure of sperm and ovum.	The study provides knowledge about the basics of reproductive biology. It combines dynamic physiological approach with descriptive approach.			

Animal Physiology and Endocrinology	1. Heterotrophic Nutrition, 2. Exchange of Gases, 3. Excretion, 4. Physiology of Nerve Impulse conduction, 5. Organisation and Function of major Endocrine glands; with special reference to Pituitary, Thyroid, Testis and Ovary 6. Reproductive cycles (menstrual cycle and estrous cycle) and their hormonal control.	The study provides in depth understanding of basic mammalian body organisation. Almost all major physiological functions are dealt with in this unit. It describes the major interplay among the hormonal system and the reproductive cycles.	
Paper	 2B (Practical) I. Identification with reasons: Paramoecium, Sycon, Obelia, Fasciola, Ascaris, Earthworm, Cockroach, Pila, Starfish, Branchiostoma, Ascidia, Petromyzon, Scoliodon, Labeo, Toad, Naja, Pigeon, Rat, Chiroptera. Identification of cell division stages (mitosis) dentification of Mammalian T.S of liver, lungs, kidney, thyroid, testes, ovary. Biochemistry: Identification of glucose, starch and protein. Preparation of squamous epithelium and blood film. 		
Semester	4 th		
Course	Zoology (Major)		
Paper	4A		
Unit:I	Topic	Learning objectives	

Microbiology,	1. General characters	In detail study explaining the concept,			
Parasitilogy	and major classification classification and examples of the said topics.				
and	of microbe				
Immunology	2. A)Major cells, types				
	and organs of immune				
	system.				
	B) Primary and				
	secondary lymphoid				
	organs.				
	C) Types of immune				
	systems.				
	D) Cell mediated				
	immune system and				
	humoral immune system.				
	E) Concept of antigen				
	and types of antibodies.				
Semester	4 th				
	7				
Course	Zoology (General)				
Paper	4A				
Unit I	Topic	Learning objectives			
Applied	Apiculture, Sericulture	In detail study explaining the concept,			
Zoology		classification and examples of the said topics.			
Course					
Course		Zoology (Major)			
Paper	6A (Theory)				
Unit III	Topic	Learning objectives			
Endocrinology	HIstological structures	Detailed study of all the major endocrine glands			
	and functions of major	are dealt with in here.			
	endocrine glands,				
	disorders related to them,				
	invertebrate hormones				

	6B (Practical)		
	1. Identification of bones (comparative aspects): skull, limb bones (humerus, radio-ulna, femur, tibia-fibula) and girdle bones of toad, lizard, pigeon and guinea pigs.		
Paper	2. Identification and characterization of histological slides of :		
	A) Pituitary		
	B) Thyroid		
	C) Adrenal		
	D) Pancreas (Islets of Langerhans)		
	E) Testis		
	F) Ovary		

Resources/	Whiteboard, Marker, Projector, Reference books & previous year question			
Materials	papers			
Used				
Basis of	Detailed discussion on the topics and citing examples related to different			
Class taken	topics with the aim to develop fair concept about the topic among the			
	students.			
Assessment	Class Test/Assignment/Internal exams/PowerPoint presentation			
Feedback to	Performance based discussion/ necessary steps taken/ reviewing weak points			
students	& nurturing their concept.			
Revision /	Revision was done after completion of syllabus, remedial classes was taken			
Remedial	for the slow learners and special class was taken for fast learners as well.			
Classes				

Lesson plan-1

Class: B. Ed 1st Semester

Paper: C2, Contemporary India & Education

Unit: 4

Learning Objectives:

The student-teachers will be able to:

- 1. Know the contemporary issues related to education in India.
- 2. Gain a deeper understanding of ideas about RTE Act-2009.
- 3. Get a grasp of the recommendations & implications of Radhakrishnan Commission, Mudailiar Commission and Kothari Commission.

Course Content/Syllabus for presentation

	Sl. No.	Contemporary Issues, Policies & Commission	Time	Reading Material	Assessment	Submission date
	1	Contemporary Issues i. Unemployment ii. Poverty iii. Population explosions iv. Student unrest	3 hours	Contemporary India & Education. i. Aahehli Publication ii.Rita Publication.	Poster (mark-1)	2 nd class
	2	Discussion on RTE Act-2009, SSA, RMSA, thrust towards enrolling & retaining marginalized children	5hours	"	Group discussion (mark-2)	3 rd Class
3	3	Role of teacher in the context of universal & inclusive Education	1½ hours	Foundation & Development of Education (Rita, Neelkamal Publication)		
4.		Radhakrishnan Commission, Mudailiar Commission: i. Recommendations ii. Implications	3 hours	"	Group Presentation (mark-3)	5 th class
5.		Kothari Commission: i. Recommendations	21/2	? ?	99	

ii. Implications	· ·	
n. Implications	hours	

Evaluation:

- 1. Discuss various contemporary issues related to education in India.
- 2. Discuss the main features of (Right to Education) RTE-2009 and its implication.
- 3. What is inclusive education? Discuss the role of a teacher to promote universal and inclusive education.
- 4. Discuss about Radhakrishnan, Mudailiar and Kothari commission with their recommendation and implication.

Mode of Transaction: 1. Lectures, 2. Discussion, 3. Assignments, 4. Film related to topic(if needed)

Reference:

- Ghanta, P., & Das, B. N. (2006). Foundations of Education. New Delhi, Hyderabad: Neelkamal.
- Mandal, D. K., Nag, D., & Sinha Dasgupta, P. (2012). Foundations and Development of Education. Kolkata: Rita Publication.
- Nag, S., & Nag, D. (2016). Contemporary India and Education. Kolkata: Rita publication.
- Saha, P., Pandit, A., Saha, D., & Sinha, D. P. (2016). Contemporary India and Education. Kolkata: Aaheli Publisher.
- Right to Education MHRD. (2018, may 8). Retrieved from mhrd.gov.in > School Education
- SSA Shagun. (2018, june 13). Retrieved from http://www.ssa.nic.in/

Lesson plan-2

Class: B. Ed 1st Semester

Paper: C2, Contemporary India & Education

Unit: 5

Learning Objectives:

The student-teachers will be able to:

- 1. Understand the different committees worked for setting up the language policies.
- 2. Find the Current research on multi-lingual education.
- 3. Understand about Educational planning and management.

Course Content/Syllabus for presentation

Sl. No.	Language policy & Education	Time	Reading Material	Assessment	Submission date
1	Committees worked for setting language policies in India since independence.	2hours	Rita publication		uate
2	Current research on multi- lingual education; medium of schooling & debates Thereon.	3hours	>>	Group discussion (mark-2)	2 nd class
3	Educational planning and management: i. Educational planning ii. Institutional planning iii. Leadership	5hours	School administration Organization & management- (S.S. Chandra)	Group Presentation (mark-3)	4 th class
4.	Administrative structure of secondary education.	2hours	99	Poster (mark-1)	5 th class
5.	Quality management, Supervision	3hours	99		

Evaluation:

- 1. Discuss the various committees worked for setting up language policies in India since the Independence.
- 2. What is Educational Planning & Management? Discuss its role.
- 3. Discuss principles, types and approaches of educational planning.

Mode of Transaction: 1. Lectures, 2. Discussion, 3. Assignments, 4. Film related to topic.

Reference:

- Aggarwal, J., & Gupta, S. (2013). Secondary Education and Management. Delhi: Shipra Publication.
- Chandra, S., & Chakarrborty, A. (2014). School Administration, Organization & Management. Meerut: R. Lall Book Depot.
- Ghanta, P., & Das, B. N. (2006). Foundations of Education. New Delhi, Hyderabad: Neelkamal.
- Mandal, D. K., Nag, D., & Sinha Dasgupta, P. (2012). Foundations and Development of Education. Kolkata: Rita Publication.
- Nag, S., & Nag, D. (2016). Contemporary India and Education. Kolkata: Rita.
- Tyagi, R. S. (2009). Administration and Management in School Education. Delhi: Shipra Publication.

Sarajit Biswas

Asst. professor, Holy Cross College

Dept. of Teacher Education (Agartala)

Lesson plan-1

Class: B. Ed 1st Semester

Paper: C1, Child and growing up

Paper: C5, Understanding subjects

Course Content/Syllabus for Semester 1

Day	Cl	Date	~~
1	Characteristic of	1	C5
	childhood and	1,	Maths as a subject and
	adolescent period Child	1	discipline, Nature, History
	development skill		
2	Physical development	2	Mother Land
	in school age children,	~	Methods of teaching
	Social Development		
3	Marginalization,	3	Understanding
	Marginalized groups,		Understanding and place in curriculum of maths
	Actions of		curriculum of maths
	marginalization, Impact		
	of marginalization		
4	Marginalization	4	Revision
	children, Slum and		-30,131011
	impact, Slum child and		
	experience, Girl child		
	of urban slum area,		
	Education & Slum		
-	Child		
5 6	Dalit and discrimination	5	Remedial Classes
U	Exceptional children,	6	Solving question papers
7	Disabled children		
	Agents of Socialization,		
	Socio Culture influence		
	on Development, Problems of		
	development in Tripura		
	Understanding		
	childhood &		
	adolescence,		
	Characteristics		
	Significance of gender,		
	caste, Role of parents,		
	Role of teachers		
)	Individual differences		
	Nature, causes,		

Lesson plan Class: B. Ed 1st Semester

Paper: C5 Understanding Discipline & Subject Unit: 2

Dr.Tomina NS

Content	Activity
Language as a subject & discipline	
Language as a subject & discipline	Assignment
Language as a subject & discipline	
Evolution of Language	
Evolution of Language	
Evolution of Language	Group Work
History of Language	
History of Language	9
History of Language	Assignment
What is language	
What is language	
Nature of language	
Nature of language	Test
Understanding of language in relationship to other discipline	
Understanding of language in relationship to other discipline	Assignment
Understanding of language in relationship to other discipline	
Linguistics and other disciplines in language	
Linguistics and other disciplines in language	Subject Board Work

Lesson plan-1

Class: B. Ed 2nd Semester

Paper: EPC-2 Drama & Art in Education

Unit: 1 to 3 Teacher: Dr.Biswarupa Datta

Date	Topic	Activity
1/6/22	Meaning and concepts of Arts	
		<u> </u>
3/6/22	Visual and performing arts	Dancing,
		singing and
		acting
13/6/22	Significance of music at secondary	
	level	
16/6/22	Significance of music at secondary	
	level	
20/6/22	Internal Exam	Exam
23/6/22	Internal Exam	
	Internal Exam	
28/6/22	Internal Exam	
1/7/22	Distinguish between visual and	
	performing Arts	
4/7/22	Distinguish between visual and	
	performing Arts	
7/11/22	Distinguish between visual and	
44/44/00	performing Arts	
11/11/22	Distinguish between visual and	Discussion
15/11/22	performing Arts	
15/11/22	Difference between Education in arts	
16/11/22	and arts in education.	
16/11/22	Difference between Education in arts	
17/11/22	and arts in education. Difference between Education in arts	Discussion
17/11/22	and arts in education.	Discussion
18/11/22	Difference between Education in arts	
10/11/44	and arts in education.	
	and arts in education.	

21/11/22	Difference between Education in arts	
21/11/22	and arts in education.	
22/11/22	Identification of different performing	
22/11/22	art forms	
23/11/22	Identification of different performing	
23/11/22	art forms	
25/11/22	Identification of different performing	
23/11/22	art forms	
28/11/22	dance	
29/11/22	dance	Practical
30/11/22	dance	
1/12/22	dance	Practical
2/12/22	dance	Practical
5/12/22	dance	Practical
6/12/22	dance	Practical
7/12/22	music,	Practical
8/12/22	music,	Practical
9/12/22	music,	Practical
12/12/22	music,	Practical
13/12/22	musical instruments	Practical
14/12/22	musical instruments	Practical
15/12/22	musical instruments	Practical
16/12/22	musical instruments	Practical
19/12/22	musical instruments	Practical
20/12/22	musical instruments	Practical
21/12/22	musical instruments	Practical
22/12/22	musical instruments	Practical
23/12/22	Theatre drama	Practical
9/1/2023	Theatre drama	Practical
10/1/2023	Theatre drama	Practical
11/1/2023	Theatre drama	Practical
12/1/2023	Theatre drama	Practical
13/1/2023	Theatre drama	Practical
16/1/2023	Theatre drama	Practical
17/1/2023	puppetry and visual arts.	Practical
18/1/2023	puppetry and visual arts.	Practical
19/1/2023	Indian festivals and their artistic	Discussion
	significance with special reference to	
	Tripura [with illustrations].	
20/1/2023	Indian festivals and their artistic	
	significance with special reference to	
	Tripura [with illustrations].	
	Study Leave and Exam	
9/2/23	Practical class for activities	Practical
10/2/23	Practical class for activities	Practical
13/2/23	Practical class for activities	Practical

14/2/23	Practical class for activities	Practical
16/2/23	Practical class for activities	Practical
17/2/23	Practical class for activities	Practical
20/2/23	Practical class for activities	Practical
21/2/23	Practical class for activities	Practical
223/2/23	Practical class for activities	Practical
23/2/23	Practical class for activities	Practical
24/2/23	Practical class for activities	Practical
27/2/23	Practical class for activities	Practical
28/2/23	Practical class for activities	Practical
1/3/23	Indian festivals and their artistic significance with special reference to	Discussion
1/3/23	Tripura [with illustrations]. Indian festivals and their artistic significance with special reference to Tripura [with illustrations].	
2/3/23	Indian festivals and their artistic significance with special reference to Tripura [with illustrations].	
33/3/23	Indian festivals and their artistic significance with special reference to Tripura [with illustrations].	
6/3/23	Indian festivals and their artistic significance with special reference to Tripura [with illustrations].	
9/3/23	Indian festivals and their artistic significance with special reference to Tripura [with illustrations].	
10/3/23	Practical class for activities	Practical
13/3/23	Practical class for activities	Practical
14/3/23	Practical class for activities	Practical
15/3/23	Practical class for activities	Practical
17/3/23	Practical class for activities	Practical
20/3/23	Practical class for activities	Practical
21/3/23	Practical class for activities	Practical
23/3/23	Practical class for activities	Practical
27/3/23	Practical class for activities	Practical
28/3/23	Practical class for activities	Practical
29/3/23	Practical class for activities	Practical
3/4/23	Viva	Exam
5/4/23	Viva	Exam
10/4/23	Viva	Exam
11/4/23	Viva	Exam
12/4/23	Viva	Exam
13/4/23	Viva	Exam
17/4/23	Viva	Exam

18/4/23	Viva	Exam
20/4/23	Viva	Exam
24/4/23	Viva	Exam
	Internal Exam	Exam

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Tripura University Reg. Code: 17

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DEPARTMENT OF HISTORY, HOLY CROSS COLLEGE, AGARTALA CLASS PLAN

TEACHER: - Debasish Datta PERIOD: - April 17th 2023 onwards

Sl.	Date	2 nd sem	4 th sem	6 th sem (7 th	6th sem (8 th paper)	6 th sem	2 nd sem	2 nd Sem History Elective	Add-on Course
No.				paper)		(Project	FNDC		
						paper)			
1.	17.04.2023	No class	No Class	Introduction to	Not applicable for the	No Class	No Class	Discussed the basic	
				the History of	time being			structure of the Unit 4 of	
				Tripura, Part - 1				BA second sem hist	
								elective syllabus of TU	
2.	18.04.2023	Introduction	No Class	Introduction to	Not applicable for the	No one has	No Class	No Class	
		to Medieval		the History of	time being	shown up for			
		Indian		Tripura, Part - 2	· ·	the class			
		History		•					
		Class 1							
3.	19.04.2023	Introduction	No Class	No Class		No Class			
		to Medieval							
		Indian							
		History							
		Class 2							
4.	20.04.2023	Introduction	No student –	No student – so					
7.	20.04.2023	to Medieval	so no class	no class					
		Indian	30 Ho Class	110 01035					
		mulan							



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		History Class 3						
	Holiday							
	Saturday							
	Sunday							
5.	24.04.2023			Introduction to the History of Tripura, Part - 3		Introductory Class	Due to a meeting was not able to take the class	
6.	25.04.2023		Formation of the Indian National Congress, Class - 1	Society, Politics and Economy of Tripura Before Bir Chandra Manyika, Class - 1				
7.	26.04.2023	Bhakti Movement, Class - 1	No Class	Society, Politics and Economy of Tripura Before Bir Chandra Manyika, Class - 2	No one has shown up for the class			
8.	27.04.2023	Bhakti Movement, Class - 2			1 - class			



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9.	28.04.2023	Availed one C	Casual Leave				
10.	29.04.2023	Saturday					
11.	30.04.2023	Sunday					
12.	01.05.2023		Formation of the Indian National Congress, Class - 2	Society, Politics and Economy of Tripura Before Bir Chandra Manyika, Class - 2		Discussed the basic structure of all the four topics of the unit 4 of BA Gen 2 nd sem Hist Elec	
13.	02.05.2023	No class due to HODs' meeting		Society, Politics and Economy of Tripura Before Bir Chandra Manyika, Class - 3	Class - 2		
14	03.05.2023	Bhakti Movement, Class - 3		Society, Politics and Economy of Tripura Before Bir Chandra Manyika, Class - 4			
15.	04.05.2023	Sufi Movement – Class - 1			Class - 3		



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	05.05.2023		State holiday									
	06.05.2023		Saturday									
	07/05/2023				Sun	day						
16.	08/05/2023		No Class due to program	Politics of Tripura Before Bir Chandra Manyika								
17.	09/05/2023				State h	oliday						
18.	10/05/2023	Kabir, Class - 1		Economy of Tripura Before Bir Chandra Manyika					Class - 1			
19.	11.05.2023	Kabir, Class				Class - 3						
20.	12.05.2023		Moderates and Extremists – class -1			I went for the class but students did not show up	Jainism, class - 1					
21.	15.05.2023		Took the students Literary fest of English Department	Economy of Tripura Before Bir Chandra Manyika, half class as madam Susmita was				Sikh Mughal relations – class 1				



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				having a birthday celebration organized by the students of the department			
22.	16.05.2023	No class due to HOD's meeting		Economy of Tripura Before Bir Chandra Manyika - continued	Class - 4		
23.	17.05.2023	No class due to a Special Lecture		No class due to a Special Lecture			Class - 2
24.	18.05.2023	Kabir, Class			No one has shown up for the class		
25.	19.05.2023		Moderates and Extremists – class -2	Economy of Tripura Before Bir Chandra Manyika - finished			
26.	22.05.2023		Swadeshi Movement, Class - 1	Chakla Roshanabad, Class - 1		Sikh – Mughal Relations Class - 2	



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27.	23.05.2023	Kabir, Class - 4		Chakla Roshanabad, Class - 2		Class - 4			
28.	24.05.2023	Sufi Movement		Appointment of Political Agent in Princely Tripura					
29.	25.05.2023	Sufi Movement, 2nd Class				Class - 5			
30.	26.05.2023		Partition of Bengal	Appointment of Political Agent in Princely Tripura, Class - 2		Class - 6	Buddhism		
				Sumr	mer Vacation – 2023 – fr	com 27 th May to	11 th June 2023	3	
31.	12.06.2023		Swadeshi Movement		Chinese May 4 th Movement – Class 1			Sikh Mughal relations – class 3 No class due to HoDs' meeting	
32.	13.06.2023	Half Class due to an urgent meeting called by the			Chinese May 4 th Movement – Class 2	No one has shown up for the class			



Class Plan

Debasish Datta – Academic Session 2022-23

	1 st Sem BA Gen	3rd Sem Hist Hons	5 th Sem Hist Hons	1 st Sem Hist Hons
17/10/2022	Sources of Ancient Indian	Aurangzeb's Rajput Policy	Royal Absolutions	
	History		in France – Louis	
			the 14	
18/10/2022		Aurangzeb's Rajput Policy	continued	Aryan problem
19/10/2022		Comparison between the Rajput	continued	
		policy of Akbar and Aurangzeb		
20/10/2022		Introduction to Mughal land	Age of	Due to one meeting of the RRC
		revenue system	Enlightenment	was not able to take the class
21/10/2022	Aryan problem -continued	Zabti System	French Revolution	Archaeological Sources of
				Ancient India
26/10/2022		Zabti System – 2 nd class	Features of French	
			Revolution	
27/10/2022	Aryan Problem last class	Zabti System – 3 rd class	Features of French	
			Revolution – 2 nd	
			class	
28/10/2022	Early Vedic Culture -	Mughal land revenue administration	Impact of French	Indus Valley Civilization
	Society		Revolution	
29/10/2022		Weekend		
30/10/2022				
31/10/2022	Differences between Indus	Mughal land revenue administration	Impact of French	
	Valley civilization and	-2 nd class	Revolution – 2 nd	
	Vedic civilization		class	
1/11/2022	Early Vedic Culture –	Mughal land revenue administration	Impact of French	
	politics and economy	- 3 rd class	Revolution – 3 rd	
			class	
2/11/2022		Mughal General Administration	Industrialization in	
			Europe	

3/11/2022	Early Vedic Culture -	Class Presentation	Industrialization in	
	Sources		Europe – 2 nd class	
4/11/2022	Later Vedic Culture -	Mughal General Administration –	No class due to	
	Sources	2 nd class	NAAC work	
5/11/2022		Weekend		
6/11/2022				
7/11/2022		Mughal General Administration –	No class due to	Indus Valley Civilization – 2nd
		3 rd class	NAAC work	class
8/11/2022		Holiday		
9/11/2022	Demo – T.U. online	No class due to NAAC work	No class due to	
	registration process		NAAC work	
10/11/2022	No class due to 11 th	Class Test	Industrialization in	
	Graduation Day Meeting		Europe – 3rd class	
11/11/2022	Later Vedic Culture -	No class	Industrialization in	
	Political setups		France	
12/11/2022	Weekend			
13/11/2022				
14/11/2022	No class due to NAAC	No class due to NAAC work	Industrialization in	No class
	work		France	
15/11/2022	No class	No class due to NAAC work	No class due to	No class due to NAAC work
			NAAC work	
16/11/2022	No class	No class due to NAAC work	No class due to	No class
			NAAC work	
17/11/2022	No Class	No class due to NAAC work	No class due to	Early Vedic Age
			NAAC work	
18/11/2022	No class due to NAAC	No class due to NAAC work	Why	Later Vedic age
	work		industrialization	
			first happened in	
			England	
19/11/2022	Weekend			
20/11/2022				

21/11/2022	Religious protest movement in Ancient India	Mughal General Administration – 4 th class	Why industrialization first happened in	No class
			England	
22/11/2022	No class	Central Asian policy of the Mughals -Introduction	Difference between the industrialization in	Class Test
			England and Europe	
23/11/2022	No Class	Central Asian policy of the Mughals - background	Difference between the industrialization in England and Europe – 2 nd class	No class
24/11/2022	No class	Class test	Class Presentation	No class due to a meeting with the college administration
25/11/2022	Reasons for the rise of the Religious Protest movement in Ancient India	Central Asian policy of the Mughals – Babur and Humayun	Utopian and Marxian Socialism - introduction	
26/11/2022	Weekend			
27/11/2022				
28/11/2022	Rise of Buddhism	Class presentation	Utopian Socialism – 1 st class	
29/11/2022	No Class	Revision Class - Central Asian policy of the Mughals – Babur and Humayun	In-complete class due to urgent work related to the Enquiry Committee	Rise of Buddhism

Debasish Datta

Head Department of History Holy Cross College, Agartala.

DEPARTMENT OF HISTORY HOLY CROSS COLLEGE, AGARTALA

STUDY PLAN

TEACHER: - Susmita Banerjee

PERIOD: - April-May 2023

PERIOD:	<u>April-May </u>	<u>2023</u>			
2 nd sem hist hons	4 th sem hist	6 th sem hist hons	6th sem hist	2 nd sem BA	6 th sem BA Gen
	hons	(7 th paper)	hons (8th	GENERAL	SS3
		(Para)	paper)		
			pup (1)	Unit II	Unit II
Unit II 650-C	Unit: I:	Unit IV : Tripura	<u>Unit III: Japan I</u>	Omt II	Omt II
1200AD (II)	Colonial Polity	<u>-II</u>	Omi mi	1 5 11 6	1 11
	and Popular	_	1. Tokugawa	1. Decline of	1. Human Rights
1. Economy: land	Resistance	1. Era of	Shogunate-	Delhi	Movement in India
grants and agrarian		modernization	causes of	Sultanate-	
expansion; feudal	1. Expansion	and reformative	decline	causes	2. Role of National
relations	and	measures —	2 TI D		Human Rights
2 Faanamuu uubaa	consolidation	Birchandra	2. The Perry	2. Rise of	Commission, State
2. Economy: urban centres, trade &	of British	Manikya to Bir	Mission and	Provincial	Human Rights
commerce	power in India (1818-1 563:	Bikram Kishore Manikya.	Opening of Japan.	Kingdoms-	Commission,
Commerce	Charter Acts	Manikya.	Japan.	Vijayanagar	001111111111111111111111111111111111111
3. Rise & growth of	of 1813 and	2. Social and	3. Meiji	and Bahamani	Judiciary, NGO,
regional languages	1833.	political	Restoration;	and Danamam	Media NGO,
with special reference		movements in	popular and	2 Dl1-4: 1	Media
to Bengali, Tamil &	2. Ideology of	Tripura (1935-	democratic	3. Bhakti and	2 11 - D: 14 C
	Expansion-	1949):	movements-	Sufi	3. Human Rights of
Marathi	Mercantilism,	Janamangal	Satsuma	Movements-	Vulnerable Groups:
4. Socio-Cultural	Orientalism.	Samiti, Reang	rebellion: Meiji	Origin and	Children, Women,
developments:	3. Popular	uprising, Janashiksha	constitution of 1889	Features	Refugees,
Shankara & Bhakti	resistance to	movement,	1009		Internally
philosophy;	colonial rule:	Prajamandal	4.	4. Sher Shah-	Displaced
transformation of	a) Santhal -	Samiti. Gana	Modernization	emergence,	
Buddhism-influences	causes, nature	Mukti Parishad	of Japan under	reforms, &	Population
of tantric practices,	and impact: b)		Meijis:	achievements.	_
art & architecture of	Revolt of	3. Rabindranath	Education,		4. Emerging
the Pallavas & the	1857- causes,	Tagore and	society and		Trends of Human
Cholas	nature, impact	Tripura;	economy.		Rights
	and	Contribution of			Rights
	historiography,	Princely Court towards			
	4. Major	development of			
	constitutional	Bengali language			
	reforms since	and literature.			
	1909 to 1935.				
		4. World War I &			
		II and Tripura;			
		integration of			
		Tripura to Indian			
		Union.			
	1				

DEPARTMENT OF HISTORY HOLY CROSS COLLEGE, AGARTALA

LESSON PLAN

TEACHER: - Susmita Banerjee

PERIOD: - <u>April-JULY</u>

Date	E2	2 nd Sem	4 th sem	6 th sem	Mentoring	6 th sem (Project paper)	E6 SS3	2 nd sem BA GENER AL
17 th Apr il	Class Take n	Class Taken	Nil	Nil	NIL	NIL	NIL	NIL
24 th Apri 1	Class Take n	Class Taken	NIL	NIL	NIL	Class Taken	NIL	NIL
25 th Apri l	NIL	Class Taken	Class Take n	Class Taken	NIL	Class Taken	NIL	NIL
26 th Apri 1	NIL	Class Taken	NIL	NIL	NIL	Class Taken	NIL	Class Taken
27 th Apri 1	NIL	NIL	Class Take n with an extem pore class	Class Taken	NIL	Class Taken	NIL	NIL

28 th Apri 1		Class Taken	test.			Class Taken	Class Taken	
Date	E2	2 nd Sem	4 th sem	6 th sem	Mentoring	6 th sem (Project paper)	E6 SS3	2 nd sem BA GENER AL
1 st May	Class Take n	Class Test	NIL	NIL	Class taken	Class Taken	NIL	NIL
2 nd	NIL	Class Taken	Class Take n	Class Taken	NIL	Class Taken	NIL	NIL
3 rd May	NIL	Class Taken	NIL	Class Taken	Class Taken	NIL	NIL	Class Taken

4 th May	NIL		Class Test and Class taken	Class Taken		Class Taken	NIL		NIL
Date	E2	2 nd Sem	4 th sem	6 th sem	Mentoring	6 th sem (Project paper)	E6 SS3	Add On Course	2 nd sem BA GENER AL
8 th May	Class Take n	Program m at college	NIL	NIL	NIL	Class Taken	NIL		NIL
10 th May	NIL	NIL	NIL	Class Taken	Class Taken	Class Taken	NIL		Class Taken
11 th May	NIL	NIL	Class Take n	Class Taken	NIL	Class Taken	NIL		Class Taken

12 th May		Class Taken		mme by the Rights.	e Debate Club and	by the De	partment o	of Political So	cience on
15 th May	Class Take n	Class Taken	NIL		Class Taken	Class Taken	NIL	Class Taken	NIL
Date	E2	2 nd Sem	sem	6 th sem	Mentoring	6 th sem (Project paper)	E6 SS3	Add On Course	2 nd sem BA GENER AL
16th May	NIL	Class Taken	Class Take n	Class Taken	NIL	Class Taken	NIL	NIL	NIL
17 th May	NIL	NIL	NIL	Class Taken	Class Taken	NIL	NIL	NIL	Class Taken

18 th May	NIL	NIL		Class Taken	NIL	Class Taken	NIL	NIL	NIL
19 th May	NIL	Class Taken	Campus	Bazar and	Inspection		Class Taken	Campus B Inspection	azar and
22 nd may	Class Take n	Class Taken	NIL	NIL	Class Taken	NIL	NIL	NII	NIL
Date	E2	2 nd Sem	4 th sem		Mentoring	6 th sem (Project paper)	E6 SS3	Add On Course	2 nd sem BA GENER AL
23 rd May	NIL	Class Taken	Class Taken	Special Lecture	NIL	Class taken	NIL	NIL	NIL

24 th	NIL	NIL		Class	Class Taken	NIL	NIL	NIL	Class
May			NIL	Taken					Taken
25 th	NIL	NIL	Class	Class	NIL	Class	NIL	NIL	NIL
May			Taken	Taken		Taken			
26 th	NIL	Class	NIL	NIL	Faculty	Class	Class	NIL	NIL
May		Taken			Meeting	Taken	Taken		

Prepared by:

Banerje

Susmita Banerjee

Assistant Professor Department of History

HCCA

Department of History Holy Cross College Agartala,

Debasish Datte

Department of History Holy Cross College Agartala,

Class Plan by Susmita Banerjee

Monsoon Session (Odd Semester)

Year: 2022

1st Semester

Unit:III: Mauryan India

- 1. Rise of Magadha and Mauryan Empire, material background.
- 2. Mauryan expansion and administration from Chandragupta Maurya to Ashoka, economy
- 3. Asoka's Dhamma, Maurayan Art and Architecture.
- 4. Decline of the Mauryan state.

Topic	<u>Date</u>	Medium of Instructions
Rise of Magadha and Mauryan Empire material background.	16 th September (Rise of Magadha) 19 th September (Rise of Maurayan Empire)	PowerPoint Presentation PowerPoint Presentation
Mauryan expansion and administration from Chandragupta Maurya to Ashoka, economy	21st September (Maurayan Expansion) 23rd September (Maurayan Expansion) 26th September (Maurayan Economy) 28th September (Maurayan Economy)	Blackboard and Discussion Blackboard and Discussion Blackboard and Discussion Blackboard and Discussion
	30 th September (Maurayan Economy) 17 th October (Maurayan Administration)	Blackboard and Discussion PowerPoint Presentation

	19 th October (Maurayan Administration)	PowerPoint Presentation
3. Asoka's Dhamma, Maurayan Art and Architecture	21 st October (Ashoka's Dhamma)	Blackboard and Discussion
	28 th October (Maurayan Architecture)	Blackboard and Discussion
	31st October (Maurayan Architecture)	Blackboard and Discussion
	2 nd November (Maurayan Architecture)	Blackboard and Discussion
	4 th November (Maurayan Art)	Blackboard and Discussion
	7 th November (group Discussion)	Group discussion among students in the class
	9 th November (LIB.)	Library visit by students
	14 th November (Maurayan Art)	Blackboard and Discussion
	16 th November	Open Book Examination
	18 th November	Library

	21st November	Remedial class
	23 rd November	Class test
,	25 th November	Museum visit
	28th November	Group discussion
	30 th November	Class Test
	5 th December	Assignment Presentation
	7 th December	Assignment Presentation
	9 th December	Revision class
3,	12 th December	Orientation Program on giving Presentation.
	14 th December	Revision Class
	16 th December	Revision Class
	19 th -23 rd December	Internal Examination
	26th December-8th January	Vacation
	9 th December	Open Quiz

3rd Semester

Unit-III

1. Art and Architecture under the Mughals

2. Music, literature and society under the Mughals

3. Religious Developments: Sufi and Bhakti traditions, Sikhism

4. Decline of Mughal power: major debates

<u>Topic</u>	<u>Date</u>	<u>Medium of</u> Instructions
Art and Architecture under the Mughals	15 th September (Architecture under Mughals)	PowerPoint
	16 th September (Architecture under Mughals)	PowerPoint
	19 th September (Architecture under Mughals)	PowerPoint
	20 th September (Architecture under Mughals)	PowerPoint
	21st September (Architecture under Mughals)	PowerPoint

	22 nd September	Down-Dai
	(Architecture under Mughals)	PowerPoint
	23 rd September (Art under Mughals)	PowerPoint
	26 th September (Art Under Mughals)	PowerPoint
	27 th September	Library
	28 th September (Art under Mughals)	PowerPoint
Music, literature and society under the Mughals	29 th September (Music)	Blackboard and Discussion
	30 th September (Music)	Blackboard and Discussion
	17 th October (Music)	Blackboard and Discussion
	18 th October (Music)	Blackboard and Discussion

	19th October (Music)	Blackboard and Discussion
	20 th October (Literature)	Blackboard and Discussion
	21st October (Literature)	Blackboard and Discussion
	26 th October (society)	Blackboard and Discussion
	27 th October (society)	Blackboard and Discussion
	28 th October (agrarian society)	Dictation.
3. Religious Developments: Sufi and Bhakti traditions, Sikhism	31st October (introduction to Sufism)	Discussion.
	1 st November (Sufism)	Class discussion.
	2 nd November (Sufism)	Class discussion.
	3 rd November	Library visit.
	4 th November	Open Quiz on Sufism.
	7 th November	No Class due to NAAC work
	9 th November	No Class due to NAAC work.

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	5 th December	Revision class
	6 th December	Assignment Presentation
	7 th December	Revision Class
	8 th December	No Class For Programme
	9 th December	Library visit
	12 th December	Revision Class
	13 th December	Revision Class
	14 th December	Revision Class
	15 th December	Class Test
	16 th December	Group discussion.
	19 th December-23 rd December	Internal Exams
,	26 th – 8 th January	Winter Vacation

5th Semester Paper-1

UNIT-II

- 1. Renaissance: Meaning, Causes, nature. Spread, limitations: growth of Humanism.
- 2. Reformation: origin, varieties .significance; Counter Reformation
- 3. Modern Science and Technology: Leonardo Da Vinci, Copernicus, Galileo and Newton: their contribution; Printing Revolution impact
- 4. Geographical Explorations: motives and early voyages and beginnings of colonialism with special reference to Spain, Portugal and England.

Unit III

3. Challenge to colonialism: American War of Independence- causes and significance.

<u>Topic</u>	<u>Date</u>	Medium of
1. Renaissance: Meaning,	15 th September (introduction to Renaissance)	<u>Instructions</u> PowerPoint
Causes, nature. Spread, limitations: growth of Humanism.	16 th September (meaning)	PowerPoint
	19 th September (Causes)	PowerPoint
	20 th September (Nature)	PowerPoint
	21 st September (Spread and Limitations)	PowerPoint
	22 nd September (Growth of Humanism)	PowerPoint

	23 rd September (Growth of Humanism)	PowerPoint
	26 th September (Growth of Humanism)	PowerPoint
Reformation: origin, varieties .significance; Counter Reformation	27 th September (Introduction to Reformation)	Blackboard and Discussion
	28 th September (Origin and varieties)	Blackboard and Discussion
	29 th September (significance)	Blackboard and Discussion
	30 th September (Significance)	Blackboard and Discussion
	17 th October (counter reformation)	Blackboard and Discussion
	18 th October (Counter Reformation)	Blackboard and Discussion

3. Modern Science and Technology: Leonardo Da Vinci, Copernicus, Galileo and Newton: their contribution; Printing Revolution impact	19 th October (Leonardo Da Vinci)	Blackboard and Discussion
	20 th October (Leonardo Da Vinci)	Blackboard and Discussion
	21st October (, Copernicus)	Blackboard and Discussion
	26 th October (Galileo)	Blackboard and Discussion
	27 th October (Introduction to Printing Revolution)	Blackboard and Discussion
	28 th October (Impact of Printing Revolution)	Dictation.
	31st October (Impact of Printing Revolution)	Dictation.
4.Geographical Explorations: motives and early voyages and beginnings of colonialism with special reference to Spain, Portugal and England.	1 st November (Introduction to the Geographical Explorations)	Class discussion.
	2 nd November (Geographical explorations of spain)	Class discussion.
	3 rd November	Library visit.
	4 th November (Geographical explorations of spain	Black Board and discussion.

	7 th November	No Class due to NAAC work
	9 th November	No Class due to NAAC work.
	10 th November	No Class due to NAAC work
	11 th November	No Class for the Graduation day on next day.
	14 th November (Geographical explorations of Portugal)	Black board and discussion.
	15 th November (Geographical explorations of Portugal)	Black board and discussion.
	16 th November (Geographical explorations of England)	Black Board and Discussion.
Unit III 3. Challenge to colonialism: American War of Independence- causes and significance.	17 th November (Causes of the American War of Independence)	Black Board and Discussion
	18 th November (Significance of the American War of Independence)	Black Board and Discussion

5th Semester, Paper-2

Unit: I

1. Napoleon Bonaparte: Rise, Reforms, downfall and assessment.

- 2. Politics of Conservatism. Congress of Vienna. Concert of Europe Metternich
- 3. The July Revolution of 1830: causes and results: The February Revolution of 1848: causes and results
- 4. France under Third Republic: work of Reconstruction and challenges: the Commune of 1871.

Unit III

2. Post War Crisis I- Economic Depression of 1929: causes and impact; Rise of totalitarian regimes in Germany, Italy and Japan.

Topic	<u>Date</u>	Medium of Instructions
2. Politics of Conservatism. Congress of Vienna. Concert of Europe - Metternich	21st November (introduction to the philosophy of Conservatism, Liberalism and Nationalism)	Lecture and discussion
	22 nd November	Library Visit
	23 rd November (Politics of Conservatism)	Lecture
	24 th November (Politics of Conservatism)	Lecture
	25 th November (Congress of Vienna)	Lecture
	29th November (Congress of Vienna)	Lecture
	30 th November (Concert of Europe- Metternich)	Lecture
	1 st December	Library visit

4. The July Revolution of 1830: causes and results: The February Revolution of 1848: causes and results	5 th December (Causes of the 1848 of February Revolution)	Lecture
	6 th December (Causes of the 1848 Revolution)	Lecture
	7 th December	Library
	8 th December (Effects of the 1848 Revolution)	Lecture
	9th December	No Class for SBI Life session.
4. France under Third Republic: work of Reconstruction and challenges: the Commune of 1871.	12 th December (France under Third Republic- Society and Economy)	Lecture
	13 th December (France under Third Republic- Cultural)	Lecture
	14 th December (France under Third Republic- Politics)	Lecture
	15th December	Library Visit.
	16 th December	Class Test.
	19th December-23rd December	Internal Exams
	26th – 8th January	Winter Vacation
	9 th January (Group discussion on Third Republic of France.)	Group discussion

	10 th January (France under Third Republic- challenges	Power Point Presentation
	11th January (the Commune of 1871)	Power point Presentation
	12th January	Library Visit
1. Napoleon Bonaparte: Rise, Reforms, downfall and assessment.	13th January	Assignment Presentation Day one
	16 th January	Assignment Presentation Day two.
2. Post War Crisis I-Economic Depression of 1929: causes and impact; Rise of totalitarian regimes in Germany, Italy and Japan.	17 th January (Economic Depression of 1929: causes and impact)	Power Point Presentation
	18 th January	No Class for preparation for the Kokborok Day.
	19 th January	No Classes for Kokborok Day.
	24 th January	Library visit
	25 th January	Revision Class on Economic Depression.
	26th January	No Class for Republic Day
	27 th January	Tejas
	30 th January (Rise of totalitarian regimes in Italy)	PowerPoint Presentation

31 st January	No Class for Departmental Programme.
1 st February	No class for Departmental Programme.
2 nd February (Rise of totalitarian regimes in Japan)	Power Point Presentation.
3 rd February (Rise of totalitarian regimes in Japan and Italy)	Revision Class

Unit-3

- 1. History of Bengal: Rise of Gaud under Sasanka
- 2 Harsha: Achievements.
- 3. The History of Palas, Kaivarta Revolt.
- 4. Socio-economic and cultural conditions in the Pala and Sena Age.

<u>Topic</u>	<u>Date</u>	<u>Medium of</u> <u>Instructions</u>
1. History of Bengal: Rise of Gaud under Sasanka	15 th September (Introduction to History)	Group Discussion
	20 th September (Rise of Gaud under Sasanka)	Power Point Presentation
2. Harsha: Achievements.	22 nd September (Achivements of Harsha)	Power Point Presentation

3. The History of Palas, Kaivarta Revolt.	Palas)	
	29 th September (Kaivarta Revolt)	Power Point Presentation
5. Socio-economic and cultural conditions in the Pala and Sena Age.	18 th September (Socio- economic and cultural conditions in the Pala age)	Power Point Presentation
	20th September (Socio- economic and cultural conditions in the Sena Age)	Power Point Presentation.
	27 th September	Revision Class
	1 st November	Revision Class .
	3 rd November	Revision Class
	10 th November	Revision Class

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Department of History Holy Cross College Agartala, Debasish Datte

Department of History Holy Cross College Agartala,